



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

A

753,180



—



*Liad, 2
St Feb
1877*

THE LIFE
OF
HENRY BELL.





J. Thomson Pinch

J. Scott Stewart

HENRY BELL

THE BELL SYSTEM
OF LONG-DISTANCE TELEPHONY





THE LIFE
OF
HENRY BELL

BY W. & A. G. BELL.



THE COMET STEAM TUGAT
Off Dumbarton Castle.

GLASGOW, EDINBURGH, & LONDON.



TRANSPORTATION LIBRARY

THE LIFE
OF
HENRY BELL,

THE PRACTICAL INTRODUCER OF THE
STEAM-BOAT INTO GREAT BRITAIN AND IRELAND;

To which is added, an
HISTORICAL SKETCH OF STEAM NAVIGATION,

BY EDWARD MORRIS,

AUTHOR OF THE "BRITISH RIVER OF DEATH;"—"BANNER
OF TEMPERANCE;" AND "HONORARY LECTURER OF THE GLASGOW,
TEMPERANCE SOCIETIES."

"Soon shall thy arm, unconquer'd steam, afar
Drag the slow barge, and drive the rapid car."

DARWIN.

PRINTED FOR THE AUTHOR,
AND SOLD BY
BLACKIE AND SON,
GLASGOW, EDINBURGH, AND LONDON;
AND BY JOHN MILLER, 85, INGRAM STREET, GLASGOW.
MDCCCLIV.

Transportation

Library

VM

140

.B43

M87

GLASGOW:
W. G. BLACKIE AND CO.,
PRINTERS.

3-10-33

Transport.

EPISTLE DEDICATORY.

TO THE HONOURABLE SIR JAMES CAMPBELL, LORD
PROVOST OF THE CITY OF GLASGOW, AND THE
OTHER TRUSTEES OF THE RIVER CLYDE :

MY LORD AND GENTLEMEN,

To whom could I so fitly inscribe my little work, "The Life of Henry Bell, Engineer," as to you, the zealous public guardians of that noble river on whose swelling flood steam-navigation first displayed, in Britain, its practical wonders ;—that great system of maritime intercourse, which has so beneficially revolutionized the commercial and social dealings of the nations ;—that system which is destined by divine providence to be one of the greatest and most sublime instruments of spreading civilization, learning, science, morality, and religion, "far as the sun gilds the ocean and shore?" To Henry Bell are we indebted, as you well know, for the practical introduction of this magnificent discovery. From his honoured brow the laurels never can be torn. Over his grave the flowers will bloom in one perpetual spring ; and that river, which rolls its waves past the sweet spot where he reposes, will never cease to call him conquerer of its

flood. The ancient poets of Greece, Rome, and England, with all their brilliant imagination and grasping conception, never could anticipate the triumphs which the steam-boat has achieved on the vasty deep. Homer and Virgil, Shakspeare and Milton, Pope and Dryden, Cowper and Goldsmith, with all their powers of language, had no figures of speech which could unfold the movements, or describe the splendour of those majestic palaces which cross the billowy ocean, and navigate the immense rivers of America, Canada, Egypt, India, and China, so that the flag of Britannia waves on every shore. From Bell's "Comet" of 1811, all these rovers of the deep had their birth: from the little river craft of ten to fifteen horse-power, to the leviathan of a thousand! Their safety surpasses the mail-coach on terra firma, and their swiftness will almost match that of the eagle.

My Lord and Gentlemen, having taken an active part in the effort made some years ago in Glasgow and other places to raise subscriptions for Mr. Bell, and having promised my venerated friend that I would endeavour, at some convenient time, to write a Memoir of his Life, with an outline of the history of that system of navigation which will immortalise his name, I now commit this promised work to you, and to the public; having done my best to redeem my pledge.

The illustrious names which are incorporated in this little book, with their testimonial notes expressive of Mr. Bell's claims, form a tower of strength in his defence, and will tend, I hope, to scatter the last

remains of scepticism as to his merits as the Father of steam-navigation. Brunel, Telford, Napier, Fawcett, Ewing, Sinclair, Parnell, Cleland, Smith, Gladstone, Campbell, and M'Gavin, did him good service, for which he was grateful; and they aided me powerfully during the period when the appeal was made in Glasgow, Liverpool, and London.

Citizens of Glasgow! You will not forget Bell. Many of you remember when he started the Comet on your lovely river; it was with mingled fear and hope that you beheld his first movement; but hope triumphed, as you saw him glide away, with neither oar nor canvas, against the opposing tide. Dumbarton, Greenock, and Helensburgh, witnessed his victory; and flags were waving expressive of gladness. He opened more expansively the glories of your romantic river, and the sublime scenery which adorns its shores, and calls forth the admiration of the tourist. From the city of Glasgow you may now go to every land. The steam-boats which have been built by the Clyde engineers, have carried the fame of their constructors into far distant lands. The 300,000 inhabitants of this great and beautiful city have thus the means of traveling by steam-boats, swift canal-boats, and railways, to an extent which our forefathers never dreamt of, and of which the most gifted philosophers of old could form no conception.

Were Bacon, Locke, and Newton, to behold these vehicles, how would they be astonished at the transcendent progress of society in all that adorns and dig-





*Land is
St. Feb
1888*

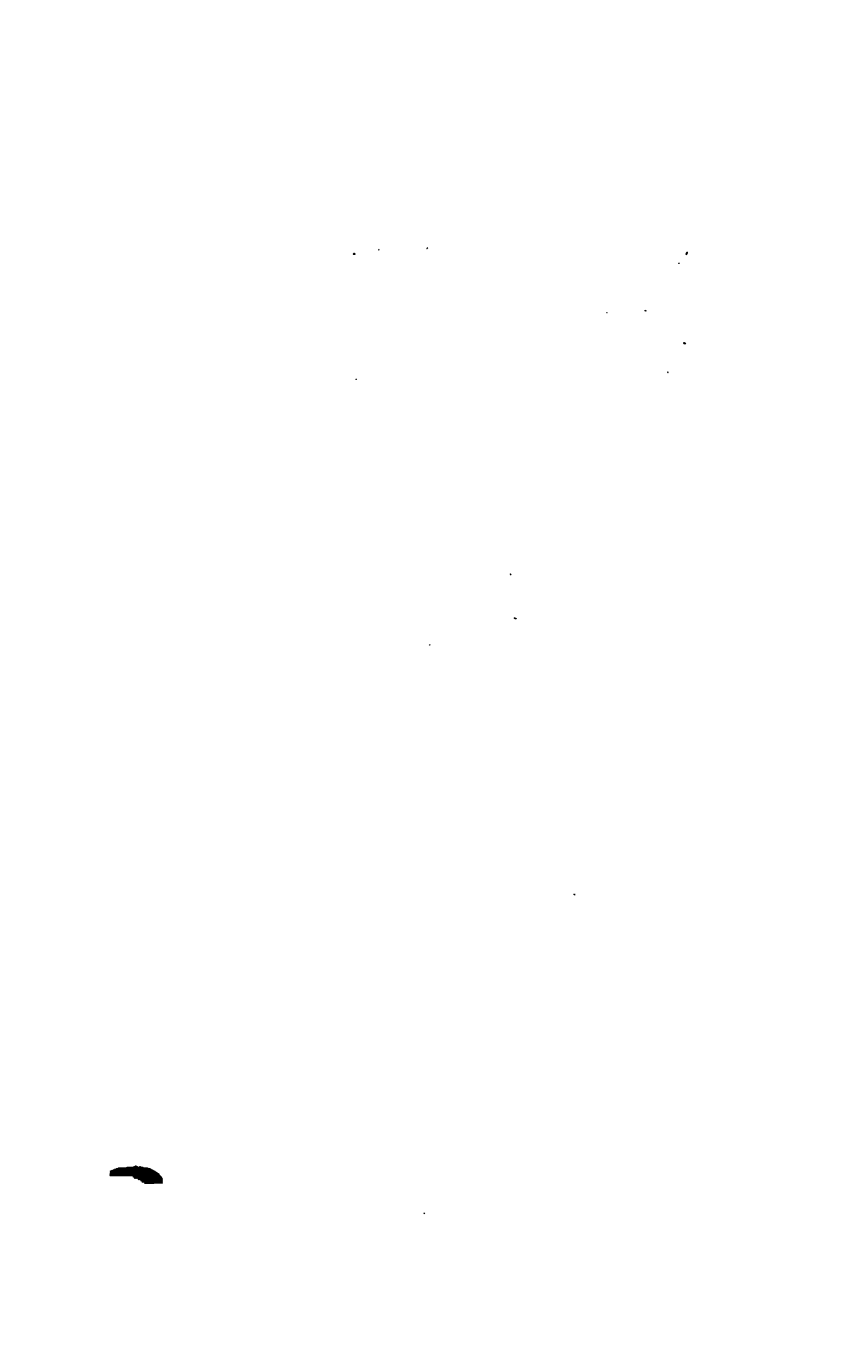
THE LIFE
OF
HENRY BELL.





HENRY BELL.

ARCHITECT AND ENGINEER.
GLASGOW, EDINBURGH, & LONDON.



THE LIFE
OF
HENRY FELL

REVISED EDITION.



THE COMET STEAM P. & A.T.
OFF Dumbarton Castle

BY J. A. F. G. G. G. G.
GLASGOW, EDINBURGH, & LONDON.

be immediately called. Let some of our ingenious, and influential citizens, come forward, and let a memorial be drawn up, expressive, and comprehensive, which shall embody Mr. Bell's claims for a grant from parliament. Where is there a man in our nation who more deserves this than the planner of the Comet? What has he done for his country and for mankind! He has united our nation with all lands. The winds and tides are now no obstruction. The steamer bolts away; and thus Heaven has opened the gates of intercourse, by the instrumentality of these fire-driven ships, which will speedily work wonders through the world, and spread knowledge, science, literature, civilisation, far as the dwellings of humanity reach, and religion will follow in their train.

“ Steam-boat proprietors of Glasgow, and engineers and builders of these magnificent barques, whose speed and strength have outstripped the dreams of poetry! you are emphatically Bell's debtors, and I doubt not will aid him in his intended application to government. A captain of one of the Clyde

steamers told me some time ago, that the proprietors of the steam-boats offered Mr. Bell the proceeds of a day's sailing of all the boats on the river, and this annually, which he refused to accept. I think he did right. It was kind in them to offer this; but Mr. Bell looks to his government for reward. A boon from head quarters is what he richly merits, and will yet wait with hope that the British government will take up his case; with the determination to return him something for all that he has done for us, and not wait till his death, and then aid in the solemn farce of erecting a monument to the memory of one whom they neglected while he was amongst them, thereby displaying the humanity of Sterne, who wept over a dead ass, and allowed his own mother to pine away for want of bread!

I am, Mr. Editor, respectfully, yours,
"E. MORRIS."

The Glasgow press took a generous and a manly interest in Bell's case, and these letters were copied into the Edinburgh and

Liverpool newspapers, with friendly comments by the editors and their correspondents; which, as far as the press could aid the cause, excited a strong hope of success when the application should be made in London. As we have before mentioned, upwards of thirty-five towns and counties backed Mr. Bell's application; Glasgow taking the lead in this just and patriotic measure, in behalf of that ingenious and persevering man, who had expended his own property, and broken down a vigorous constitution in the triumphant introduction of that great and magnificent scheme, which had for years employed the minds of our most gifted mechanics and philosophers, from the days of Jonathan Hulls, to the period when the Comet commenced her career, which will carry its owner's name and fame into every nation where steam navigation shall be established. Towards the end of September, 1826, I wrote a short letter to Mr. Bell, requesting him to draw up at his leisure an account of his own life, the date and place of his birth, his parents, his education, the date of his steam experi-

ments, &c. which statement I wished to incorporate in my conclusion of the series of letters in his behalf, which had then made a deep impression on the minds of the citizens of Glasgow. In a short time, I received the following answer from my esteemed friend, to which I solicit the attention of my readers.

“HELENSBURGH, Oct. 1826.

“DEAR SIR,—I duly received yours of 22d Sept. 1826, to which I give the following answer. In giving you a short account of my birth, it is necessary to give some account of my ancestors; they being all mechanics, in the millwright line. I sprang from the Bells of Evan Water. I was the fifth son of Patrick Bell and Margaret Easton. The Bells, as millwrights, were known, not only in Scotland, but in England and Ireland; and my mother's friends were equally well known as builders. Some of their productions were the Carron works, the first part of the Forth and Clyde navigation, and the contract of Leith wet docks. Their relations as resident engineers or inspectors under Thomas Telford,

Esq. civil engineer, constructed the harbours of Aberdeen, Peterhead, Frazerburgh, and Bamff, and the west district of the Caledonian canal, and other canals, bridges, and mechanical improvements in England, as well as in Scotland, to their own credit, and the satisfaction of their employers. I may refer you to M'Lure's History of Glasgow, where great improvements performed by my ancestors, the Bells, in that city, are fully recorded. Hence, I may say I was born a mechanic. My birth took place at Torphichen Mill, near Linlithgow, on the 7th day of April 1767. I agreed to be a mason in 1780, with a near relation of my own; and in 1783, I was bound to the millwright business, for three years, with Mr. Henry Bell, my uncle, at Jay Mill. After lawfully serving out my time, I went to Borrowstonness, to Messrs. Shaw & Hart, for the purpose of being instructed in ship modelling. I wrought with them in ship-work for the space of one year. In 1787, I engaged with Mr. James Inglis, engineer, at Bell's hill, for the purpose of gaining a thorough knowledge in the engineering.

After fulfilling my time with Mr. Inglis, I went to London, to the famous Mr. Rennie, which shows that I was not a self-taught engineer, as some of my friends have supposed, and stated, on what grounds I know not. In all the above occupations, I made it my study to turn them to some practical use, of which numerous public works in Glasgow bear witness. In 1800, I applied to Lord Melville, on purpose to show his Lordship, and the other members of the Admiralty, the practicability, and great utility, of applying steam to the propelling of vessels against winds and tides, and every obstruction on rivers and seas, where there was depth of water. My whole scheme was laid before the Admiralty, for their deliberation. After duly thinking over the plan, the Lords of that great establishment were of opinion that the plan proposed would be of no value in promoting transmarine navigation! In 1803, I made a second application to the same high quarter, and from Lord Melville received a reply that nothing would be done there. They had no faith in steam naviga-

tion. The late Lord Nelson thought otherwise: he saw at once its mighty power. He rose and emphatically said, 'My Lords and gentlemen, if you do not adopt Mr. Bell's scheme, other nations will, and in the end *vox every vein* of this empire. It will succeed,' added the gallant Admiral, 'and you should encourage Mr. Bell.' Having obtained no support from my country, I made correct prospectuses of my long-matured plan, and forwarded copies to the nations of Europe, and to the United States of America. The Americans were the first who put my plan into practice, and were quickly followed by other nations. It is not in my power, just now, to answer your query, When did you first turn your attention to the steam propelling system? The narrative would fill volumes, therefore I cannot just now enter upon the subject. I started my steam-boat 'Comet' on the river Clyde, in 1812, and from this is dated European steam navigation. As you, my friend, take a warm interest in my favour, and in bringing me into notice before the world, although an utter stranger to

me, till you had written two letters on my claims, I shall endeavour to give you as full yet concise a view as I can of the information you require. I have been diligently watching the progress of steam-navigation in my own and other countries since its commencement.

“ I intend to show, should the government or the nation award me a small sum per annum, the rise and general progress of the steam-system in Great Britain and America, as I get every year a statement of the number, tonnage, and horse power, of every steam vessel in both countries, as per register; also the amount of the original cost, the number of hands employed, the cost of working those vessels, the great advantage to the coasting villages, towns, and islands which they visit. To prove the advantages, I shall give a statement of those villages, towns, and districts, as to rental, prior to the introduction of my steam-boats, contrasted with their present rental, so that the public may see at one glance how rapid has been the rise of property, during the last twelve years; which

appears to be from fifteen to fifty per cent, in many cases. In giving this intended historical account, I shall sketch in their proper order the history of the various improvements that I have brought into practice, from which I trust it will appear to all, that I have not been an idle spectator on life's busy stage,—that the mechanical world will be roused to a full conviction, that such talents as my all-bountiful Creator vouchsafed to bestow upon me, have been exercised for the public good. A little more fuel to my steam, and from my country; and you and all the world, will get it back again, I hope with fifty per cent additional!—I remain, your friend,
“HENRY BELL, Engineer.”

The above is a rapid, but graphic outline of this meritorious, man's history, to the building of the Comet steam-boat. It shows, that, from his thirteenth year, till about his twenty-second year, he had good opportunities, with the best masters, several of them his own ingenious relations, on his father's and his mother's side, to dive into those use-

ful and sublime mechanical arts, which finally qualified him for that splendid triumph, the glories of which Glasgow in thousands witnessed, when the horn blew for that first voyage between our city and Greenock, which united the Clyde by steam to every river, channel, and sea, on which the sun sheds his radiant beams. I shall now proceed to lay before the reader those facts and illustrations in the life of Bell which I am furnished with, from papers in his own hand-writing lent me by his widow, who bears his name and still lives in that beautiful sea-bathing village, which has long been a favourite spot for the citizens of Glasgow to spend a certain portion of their leisure time, every summer, and autumn. Its tranquil shores, and the green hills, and the heathery braes; the lovely walk to Row, (in whose parish churchyard Bell's ashes tranquilly sleep) will guarantee to Helensburgh a lasting popularity; and the name of him who built the Comet will grow in celebrity, and adorn the history of that seawashed spot. It is twenty-six miles from Glasgow, to which boats, in the summer sea-

son, pass and repass every hour, or nearly so.

Mr. Bell's letter above inserted, gives the reader a bird's eye view of his origin, and shows the bent of his mind in the mechanical arts,—those arts which adorn and dignify our native country, and give her a moral and intellectual elevation, unknown to Egypt, Greece, or Rome, or any other nation, ancient or modern, which has stamped its renown through the world; and we will yet hope that our nation will rise from those great difficulties which now press with heavy hand on her industrious and ingenious millions, by the good providence of that watchful and gracious Being who created and governs the universe—will yet flourish with new beauty and glory, and be a light to every land, in freedom, literature, philosophy, morality, and true religion, as taught by Him who spoke as never man spoke.

From Mr. Bell's memoirs, which I have before me in an unfinished state, for his health broke down, and death cut short his days, and his pen was laid down for ever, I now

proceed with the narrative of his life. Mr. Bell's father was the eldest son of Patrick Bell, born at Strathmill, 1727: he married Margaret Easton, eldest daughter of John Easton, of Wester Inn, Stirlingshire, 1750. They had six sons and four daughters. His father was brought up as a wright and a miller, which occupation his fore-fathers followed for centuries. They had amongst them all the principal mills on the Water of Evan. Patrick Bell entered into possession of the mills and mill-lands of Birkinshaw in 1751: he afterwards rebuilt those mills, and sold his lease in 1765. He then removed to the mills of Torphichen, which he thoroughly repaired. In 1789 he took possession of the mills of Brigh, and died in 1793, leaving two sons, Thomas and Henry, and two daughters, Margaret and Elisabeth. Mrs. Patrick Bell outlived her husband nine years. She died at Woodcockdale, a beautiful spot near Linlithgow, in 1802, aged sixty-five. They were both interred in the burying ground of their forefathers, in the churchyard of Torphichen. Their son, Mr. Henry Bell, the subject of these memoirs, was sent

early to school, to get that solid and useful teaching, for which the parish schools of Scotland have been long distinguished. In his youth he seems to have been frolicsome, and sometimes played the truant, as many a clever lad did before his time, and will do through the generations to come. Mr. Bell mentions in his memoirs, that, after he had been at school two years, he hired himself to herd cattle. But when the winter season set in, when the frost and snow displayed their pinching effects, he was glad to quit his herding occupation, and plod over his reading lessons, his grammar and arithmetic. But it seems he returned the following summer to the cattle-herding. One object strongly urged him in this employment, his keenness to make mills and water-wheels on the streams that rushed down the hills, and through the vales, where his cattle fed. In April 1776, he was sent by his family to an uncle and aunt of his mother's, in order to attend the schools of Falkirk. He was put under the tuition of a Mr. Shaw, an excellent teacher of arithmetic. But his former teachers, it seems, were



very poor grammarians, and to the day of his death he felt the great want of being unable to convey his ideas in language which cultivated and polite society approve of. There was a richness and a genius in his thoughts and communications, but the rough garb in which these were arrayed was to his disadvantage, especially with those persons (and there are too many of them in the world) who look more on the surface than into the depth of things. As already stated, through his own letter addressed to the author of these memoirs, Mr. Bell went to learn to be a mason when he was between twelve and thirteen years of age, and from that branch of business he afterwards went to learn the millwright trade, then general engineering and ship modeling: terminating his apprenticeship, if I may so express myself, with those eminent men the Rennies of London. It was when he was serving with Messrs. Hart & Shaw, of Borrowstonness, that he formed a strong—a lasting, and as it turned out, a triumphant impression of the power and applicability of steam to transmarine purposes;

and he followed out his idea till the Comet stamped on his brow his justly won title, "Father of European steam navigation,"—a nobler title than was ever won by the proudest conquerer, by sea or land, by the most renowned heroes of Rome, or Greece, or Britain! Where is the man who will dispute this philosophic axiom, or can prove it untrue? The mechanical masters whom he had served from his early boyhood till his twenty-second year, afforded him the best means of studying those noble arts which are the glory and strength of our nation. The great James Watt, to whom Bell was well known, had brought the steam engine to that state of perfection, as to entitle him to the merit of being termed its inventor. Driving the machinery of splendid cotton mills, woolen and flax mills, and the other public works of our industrious and mechanical nation, the philosopher had long conceived the idea of applying this mighty power, the first of human inventions, to the propelling of the gallant ship on the briny flood; and against all opposing force, to send the ships of our

country over the seas into every land, making almost every navigable river in the world bear on its bosom the steam-driven vessel. The poets of Britain, among other subjects of their muse, often glanced at the possibility and probability of the steam-boat. Dr. Darwin, the ingenious author of the "Botanic Garden," wrote the following lines years before the Comet sailed on the bosom of old "Father Clyde,"—

"Soon shall thy arm, unconquer'd steam, afar
Drag the slow barge, and drive the rapid car."

Darwin was surveying the vessels on the Severn, at Shrewsbury, where it was then a hard task to bring them up the rapids, into that fine old town, the capital of Shropshire, and celebrated in history for its strong castle, the scene of many a bloody conflict, on which spot Rome planted her proud standard, in her palmy days. The poet seeing the watermen sweating and puffing, and making but slow progress, burst into the lines above quoted. When I showed these lines to Mr. Bell six-

teen years ago, he was struck with the terseness and beauty, and said he "built a steam-coach many years before he sent his steam-boat to sea;" so that Darwin's prophetic saying was amply fulfilled by the engineer of the Comet.

It appears from Mr. Bell's own writings that it was at Borrowstowness, in 1786, when with the Messrs. Shaw, that his mind was strongly impressed with the steam-boat system. He had a present made him, when a boy, of a small rigged sloop. To this sloop he paid much attention, to the exclusion often of his school education. When he had served out his apprenticeship, in the mill-wright line, he was often ruminating on the little sloop, which had charmed him in his boyish days, in sailing it on the streams, and catching the gentle breeze to aid its onward course. But the stream would often drive it in a direction contrary to his wish; and the winds, either still or adverse, would often cause him to reflect on the possibility of steam to counteract these opposing forces:—here was the Comet in embryo. As he advanced in years,

he went from Borrowstouness to Bell's Hill, (Inglis) and afterwards to Rennies of London, where he staid eighteen months. After this he took his travels to see a little of the world, and to pick up all the information he could, which could tend to aid his steam-boat system. In 1790 he settled in Glasgow, and there commenced business on his own account, with good success. In 1791, he entered into partnership with Mr. James Paterson, under the firm of Bell and Paterson, as builders, &c. This contract continued for seven years, during which period they finished many public works in and around Glasgow.

In 1798, Mr Bell. turned his attention *chiefly* to his grand object, the steam-boat. In the spring of 1800, he became acquainted with a gentleman who had a fine pleasure vessel. In this Mr. Bell placed a boiler, and engine, of four-horse power, with machinery for the paddles, and a strong cover-board, that folded over from the top of the bulwarks to prevent the gushing up of the water when at work. Mr. Bell mentions with regret, that though he had served his time with a

celebrated engineer, he did not follow up that important branch with the zeal and energy he ought to have done. About 1801, he applied to the late Gilbert Hamilton, Esq., Lord Provost of Glasgow, for a letter of introduction to that great and good man James Watt, of Watt and Bolton, engineers, Soho, Birmingham, for his advice in regard to a portable engine, that would stand on its own base with stout levers, for which Mr. Bell made out a plan. Mr Watt, it seems, did not approve of this plan, and Mr. Bell was again driven to rely on his own genius, and fight his way through all difficulties. But he did not despair. Mr. Watt, it seems, was a firm unbeliever in steam navigation! "How many noblemen, gentlemen, and engineers," said he to Mr. Bell in a letter, "have puzzled their brains, and spent their thousands of pounds, and none of all these, nor yourself, have been able to bring the power of steam in navigation to a successful issue." Mr. Watt was not singular here; deep scepticism pervaded the minds of public bodies, and the steamship was looked upon, even by our own Ad-

miralty, as a poetical fiction, up to 1807, at which period the late Mr. Fulton of America, was plying his first steamer successfully on the Hudson, with the strong support of the republican government. Mr. Fulton got the model of his steam boat from Mr. Henry Bell; and every information which Bell, in the simplicity of his heart, and the noble enthusiasm of his nature, could prompt him to give.

As this is a ticklish subject for brother Jonathan, who wishes to be thought the sole inventor of the transmarine steam system, I shall go a little into this matter, and then resume my proper narrative of Bell.

About the year 1806, Mr. Fulton was in England and Scotland. He saw the boats which Symington, Taylor, and Miller, had built, which, however valuable as experiments, were of no practical utility. They could not venture on rivers, much less brave the roaring sea. Mr. Fulton was much with Bell, and being a talented, well educated, shrewd man, he picked up much information on this great system; and Bell's models were those

he adopted when he re-crossed the Atlantic; but I am sorry to be compelled to add, he forgot the Scotch engineer of Helensburgh, and took all the merit to himself. There was too much of the Yankee in that. Lord Liverpool would have said, "This is too bad." To those gentlemen who might be inclined to dispute these facts, I would say, read the Fifth Report of the Select Committee of the House of Commons on Steam Boats, for June 1822, Sir Henry Parnell, chairman, (with whom the writer of these memoirs had several interviews, in 1829) and they will find, after several other statements, the following.—"Mr. Jonathan Hulls, in 1736; the Duke of Bridgewater, on the Manchester and Runcorn canal, Mr. Miller of Dalswinton, the Marquis de Jouffroy, (a French nobleman) in 1781; Lord Stanhope, in 1795; and Mr. Symington and Taylor, on the Forth and Clyde canal, in 1801-2. These ingenious men made valuable experiments, and tested well the mighty power of steam. Still no practical uses resulted from any of these attempts. It was not till the year 1807, when the Ameri-

cans began to use steam boats on their rivers, that their safety and utility was first proved. But the merit of constructing these boats is due to natives of Great Britain. Mr. Henry Bell of Glasgow gave the first model of them to the late Mr. Fulton of America, and corresponded regularly with Fulton on the subject. Mr. Bell continued to turn his talents to the improving of steam apparatus, and its application to various manufactures about Glasgow; and in 1811, constructed the Comet steam boat, the first of the kind in Europe, to navigate the Clyde, from Glasgow to Port-Glasgow, Greenock, Helensburgh, and Inverness." (See pages 117 and 118 Parliamentary Report on Steam Navigation.)

What will after ages say, when told that all which Mr. Bell received from government,—who thus acknowledge his claims, was £200!—and of this sum he expended nearly £100 in sundry expences connected with his journey to London, and for the petitions supporting him from Scotland and England. A glaring neglect is chargeable

somewhere. Rulers of our country! You may yet do something in this matter; the worthy widow of the engineer is still amongst us. Fifty pounds a-year from you to her would only be what the city of Glasgow is giving to compensate a little for the losses they both sustained in their country's cause, through steam navigation. These hints are given in no captious spirit, but to do justice to a worthy man.

I have before me the London Quarterly Review, vol. 19, for April 1818, in which the life of Robert Fulton, by his friend Cadwallader D. Colden, is reviewed in a rather long article, commencing at page 347. The writer passes over in silence Fulton's obligations to British engineers, and to Henry Bell especially, and claims for his friend the absolute invention and introduction of the system!

This is too ridiculous to need serious refutation,—a thousand facts prove that Great Britain has the merit of the discovery, and the United States copied the plans from us. Mr. Colden, in a blustering kind of tone,

tells us that Fulton could have blown up all the British fleets by his "fiery torpedoes," and thinks it was tender mercy in the Americans to *spare the ships of Albion*; and that our admirals seemed to be aware of the danger, and to *shy* contact with Fulton!! Shades of Nelson, Duncan, and Collingwood! I do not admire war,—we have had too much of it, and the nation is suffering from the burden caused by it. Our millions of industrious operatives are on the borders of starvation by it. It is wicked, irrational, and unchristian; but Cadwallader makes even a Quaker to feel something like the war spirit rise in his bosom, at the flippancy of these expressions, and at the general tone of the author, who had better try to put down black slavery in his own country, than write about what the Americans could do with their steam ships to crush Britain. I hope England and America know their interests better, than to bring this sublime invention into use to destroy each other. The London Reviewer, however, has not spared Fulton's injudicious friend for these faults, while, at the same time, he ac-

!

knowledges the merit of some parts of the work as a literary production.

The life of Fulton was written in 1817, and two quotations may not perhaps be out of place here,—one poetical, the other prose.

“Livingston and Fulton, dear to fame; the patron and inventer of steam boats, are no more! but their names shall be engraven on a monument, sacred to the benefactors of mankind.”

The generations yet unborn shall read,—

“——taught seamen to interrogate
With steady gaze, tho’ tempest-toss’d, the sun,
And from his beam true oracle obtain;
Franklin, dread thunderbolts with daring hand,
Seiz’d, and averted their destructive stroke
From the protected dwellings of mankind;
Fulton, by flame compelled the angry sea,
To vapour rarefied, his bark to drive
In triumph proud, through the loud sounding surge.”

“This invention,” adds Mr. Colden, “is spreading fast through the civilised world, and though excluded yet from Russia, will ere long be extended to that vast empire. A bird

hatched on the Hudson, will soon people the floods on the Volga, and cygnets descended from an American swan glide along the surface of the Caspian sea. Then the hoary genius of Asia, high throned on the peaks of Caucasus, his moist eye glistening while it glances over the ruins of Babylon, Persepolis, Jerusalem, and Palmyra,—shall bow with grateful reverence to the inventive spirit of this western world!”

In these pages of the biographer of Fulton, there is much to praise as well as much to censure; and as the American government, to their honour, warmly patronised the builder of their first practical steamer, while our more meritorious Henry Bell was neglected by the British rulers, we may make some allowance for the exulting tone and high colouring of this transatlantic author. I cannot account, however, for the ignorance which is displayed in the British Reviews, as to the merits of the man to whom England is under the deepest obligations for the glorious system, whose first triumphs Glasgow witnessed on that river, where the steam-

boats are yet seen in the greatest perfection, where Napier has reaped such just renown, and Wood, and Scott, and Sinclair, and M'Gregor, have earned a fame for the gallant boats they have produced for Britain, and many other lands.

It will be remembered that my regular narrative of Bell was up to the time when he wrote to Mr. Watt, and that great man replied, saying he thought that steam navigation would never succeed. This was enough to damp his genius: but no; he persevered by new improvements, and "his scheming ended in Britain's steaming," as remarked by that kind-hearted man, and illustrious engineer, Sir I. Brunel, to the author, when I waited upon him in London, and shall never forget his frank manner and kind feeling for neglected Bell. "This man," said he, "should have had a thousand pounds per annum, twenty years ago, for his great national services; and it is a stain upon the British government for neglecting such a benefactor to his country." Brunel then put his hand into his pocket, and by the handsome subscription he

gave, proved his sincerity; and otherwise took an interest in the undertaking. Mr. Telford also on this showed deep interest.

The late Dr. Cleland, as formerly hinted, had uniformly manifested a strong desire to see justice done to Bell; and having known him for so long a period, he was qualified to speak of his great merits. In his review of the former and present state of Glasgow, published in 1840, the worthy Doctor thus speaks of the Helensburgh engineer. The whole race of steam propelling projecters having retired, the field was exclusively occupied by Mr. Henry Bell of Glasgow. Having a strong turn for mechanics, and a desire to follow out what others had abandoned, he employed Messrs John Wood and Co., of Port Glasgow, to build a boat for him of thirty tons burden, which he fitly named the "Comet;"—one having appeared in the heavens contemporaneously; and having himself made an engine of three horse power, he applied the paddles. After several experiments in 1812, the Comet plied from Glasgow to Greenock, on the 18th January, 1812.

and made five miles an hour against a head wind.

This was the first vessel successfully propelled by steam on a navigable river in Europe: now almost every river teems with them.

It is not our intention to hold up our townsman as a person endowed with *superlative* mechanical talents, but with no small share of native genius, and unremitting enterprise, assisted by the Honourable Alexander Garden of Croy, Lord Provost of Glasgow, James Ewing, Esq., of Levenside, (one of the members of Parliament for Glasgow,) and myself, he was enabled to combat powerful opposition, and make good his claim of being the first person in Europe who successfully propelled vessels by steam, on a navigable river. This testimony no man can dispute. I know it to be correct from a thousand quarters. I have probed it to the bottom. Brunel and Telford, Fawcett and Rennie, Sir John Sinclair, and the late amiable Lord Congleton, with many of the most illustrious for literature and science, rank,

and moral worth in our country, bear the same united testimony; and I now proceed with my easy task of showing the activity of Bell, and of his worthy deeds for his country's grandeur, till within a short period of his death, which was hastened by a wound, had never healed, which he had inflicted on his knee by fitting a boiler in a steam-boat some years before.

Bell's beautiful little boat, the Comet, was wrecked in the Highlands; and Mr. Charles Atherton, civil engineer, procured the engine belonging to her, made by Bell, from its watery bed, and which will be esteemed by the antiquarian as a curiosity for ages yet to come.

The following copy of an advertisement, taken from the Glasgow papers of 5th August, 1812, I procured from Messrs Thomson and Maconnell, 15, Jamaica Street; as also the accompanying statement of prices of said steamer, with description of the route between Glasgow and Fort William, as performed by this fire-driven barque:—

THE STEAM BOAT COMET,

Between Glasgow, Greenock, and Helensburgh.

For Passengers only.

The subscriber having, at much expence, fitted up a handsome vessel to ply upon the river Clyde, from Glasgow, to sail by the power of air, wind, and steam. He intends that the vessel shall leave the Broomielaw on Tuesdays, Thursdays, and Saturdays, about mid-day, or such an hour thereafter as may answer from the state of the tide; and to leave Greenock on Mondays, Wednesdays, and Fridays, in the morning, to suit the tide.

The elegance, safety, comfort, and speed of this vessel requires only to be seen to meet the approbation of the public, and the proprietor is determined to do every thing in his power to merit general support.

The terms are for the present fixed at 4s. for the best cabin, and 3s. for the second; but beyond these rates nothing is to be allowed to servants, or any person employed about the vessel.

The subscriber continues his establishment at Helensburgh Baths, the same as for years passed; and a vessel will be in readiness to convey passengers by the Comet, from Greenock to Helensburgh.

Passengers by the Comet will receive information of the hours of sailing, by applying at Mr. Houston's office, Broomielaw; or Mr. Thomas Blackney's, East Quay Head, Greenock.

HELENSBURGH BATHS,

5th Aug. 1812.

HENRY BELL.

CHEAP CONVEYANCE TO FORT WILLIAM,

By the Comet Steam Boat.

The Comet is appointed to sail from Glasgow to Greenock, Gourock, Rothesay, Tarbert, Loch Gilp, Crinan, Easdale, Oban, Port Appin, and Fort William, on Thursday first, Sept. 2, 1812, for the above places, at 9 o'clock morning, and to continue during the season every Thursday from Glasgow,

and from Fort William on Monday. The hours of sailing will be seen on the boards at each of these places. A table of the fares is hereto annexed.

From Glasgow	CABIN.	STEEAGE.
to Greenock,.....	4/.....	2/6
to Rothesay,.....	7/.....	5/
to Tarbert and Loch Gilp,.....	8/.....	6/
to Crinan,.....	10/.....	8/
to Easdale,.....	13/.....	10/
to Oban,.....	16/.....	12/
to Appin,.....	18/.....	13/6
to Fort William,.....	22/.....	15/

From Fort William

to Appin,.....	3/.....	2/
to Oban,.....	6/.....	4/
to Easdale,.....	9/.....	6/
to Lochgilphead,.....	11/.....	7/
to Tarbert Ferry,.....	13/.....	9/
to Rothesay,.....	15/.....	11/
to Greenock,.....	18/.....	13/6
to Glasgow,.....	22/.....	15/

The above voyage the Comet completes to and from Fort William in four days, with a

reasonable time for the passengers going out and in, at the various places of call.

In commencing this undertaking, which will be of so much utility to the public, the proprietor intimates to the merchants and gentlemen of the north-west coast of Scotland, that he intends to dispose of a number of shares of said steam-boat, which he hopes will turn out to be advantageous to the owners, and to the public at large.

To those acquainted with the beautiful and romantic scenery on the route of this boat between Glasgow and Fort-William, which is indeed the concentration of the grand and sublime in nature, a short description may be to them and others interesting here. In passing down the Clyde, you have a charming view of the different noblemen and gentlemen's seats on the banks of this glorious river, with the old castle of Dunglass (where there is a monument erected to Bell,) and the ancient town and castle of Dumbarton—the scene of many of Wallace's heroic exploits. Meandering around this renowned castle, is seen the "Silver Leven," uniting there with

its sister Clyde, where they commingle with the briny ocean. Benlomond is here seen, towering over that magnificent lake, the glory of Scotland, surrounded by the noblest scenery perhaps in the world, and to which there is access every hour by the steamers, in summer. The next places on the Comet's route, are the towns of Port-Glasgow and Greenock; chiefly engaged in the West India trade. Opposite to Greenock is seen the pretty town of Helensburgh, situated at the entrance of Gareloch, where lived the celebrated man who is the subject of these memoirs. The scenery around this place is peculiarly romantic and interesting. The view from the Bath Hotel, built by Mr. Bell, and where his excellent widow still resides, is picturesque in the extreme. About a mile below Helensburgh stands the beautiful seat of his Grace, the Duke of Argyll, known by the name of Roseneath Castle, opposite to which is the Castle of Ardencaple, where Lord John Campbell (now Duke of Argyll) resided. The steamer next passes the beautiful bathing village of Dunoon,

thence to the ancient town of Rothsay, situated in a lovely bay of the salubrious isle of Bute, on which stands the royal castle, once the favoured seat of the Scottish kings. Bute and Arran are chiefly supported by the fisheries; and in the town of Rothsay is a large cotton mill, belonging to Mr. Thom, the ingenious engineer. The boat next passes through the Kyles of Bute to Loch Gilp, the entrance of the Crinan canal, where you have a good view of the seat of Oakfield. Next you pass very near the Gulf of Corryvreckin, a tremendous whirlpool similar to the Maelstrom off the coast of Norway, and also the terror of seamen, which you can see at ebb water. The vortex extends a mile in circuit; the roar at times may remind the stranger of the everlasting thunders of Niagara. The slate quarries of Easdale are well worth a visit; the view from them to the west is only bounded by the horizon and the Atlantic, where innumerable islands present themselves, in all the glorious adornments of nature, as characterised by the various seasons of the year. The eye is dazzled by the extent and

loveliness of the scenery, and the soul imbibes lofty conceptions of the power, wisdom, and benevolence of the Creator and Governor of the universe, as these objects come in rapid succession before the mental vision. From this magic spot to Oban, the Castle of Glyn strikes the attention in the small island of Kerrara, and placed in one of the most romantic situations in the world. From this place you pass to the horse-shoe harbour, where the fleet of Scotland used to winter, and where Alexander II., king of Scotland, died. The bay of Oban forms one of the prettiest views on the west coast, and is greatly admired by tourists. The Castle of Dunolly at the north entrance of the bay, together with the Dogstone, are well worth seeing. The steamer next passes through the line of the Seven Castles, which can all be seen at one particular point of view. The seven castles are Dunstaffnage, once a royal seat; Dunolly, the chief residence of the M'Dougalls of Lorn; Deuait, the seat of the M'Leans; Ardtomish, the dwelling place of the Lord of the isles; Achindown Glyn and

Barcaldine—Berigionium, the ancient capital of Scotland, is situated on this line of seven castles, and is still remarkable for its vitrified walls. The roaring of the tide of Connal, so justly celebrated by Ossian, is distinctly heard in passing the Loch,—

Here mighty Ossian struck his lyre,
And told of Fingal's deeds of yore,—
Son worthy of so great a sire,—
He sung his praise 'mid Connal's roar.

Near Fort-William commences the great Caledonian canal, the most stupendous work of the kind in Europe, and which has been of immense benefit to the Highlands. The Comet afterwards extended her route to Inverness, though it never paid the projecters.

Thus then, my readers, I have set before you the course of the Comet's voyaging. Mr. Bell and his gallant little fire-propelled vessel were welcomed in the Highland glens, and on the hills, where multitudes were assembled to watch the movements of the first boat in Europe which ventured through rivers, channels, and seas, impelled by a new power which Bell alone had the courage to carry out to

its final practical results. Great were the benefits which the Highland counties, districts, and towns, derived from the Comet, and the other vessels which followed the track, and launched into other routes, as the fruits of this successful enterprise of this most persevering individual. The rapid advance of property, wherever steam navigation put forth its ocean-subduing power, laid the nobility and gentry under deep obligations to Bell. I cannot say whether they all felt as they ought towards their common benefactor.—I am afraid not generally, but I may single out two gentlemen at least, who showed by deeds, and not by words only, that they felt his worth—the late Robert Downie, Esq. of Appin, and W. F. Campbell, Esq. of Islay. Of these gentlemen Mr. Bell spoke gratefully: they aided him in the hour of need.

My countrymen! you have now set before you the active steamer, first of her race, gliding up and down the noblest river in Scotland,—linking the largest city in this northern kingdom with all the maritime towns and districts within 250 miles of Glasgow. This

was a new era in our commerce and our naval grandeur, which is yet working its miracles through the world. The following truly sublime passage occurs in a speech which the late Mr. Canning pronounced in Liverpool, (in 1824,) “What should we think, Sir, of that philosopher who, in writing at this day a treatise upon naval architecture, and the theory of navigation, should omit wholly from his calculation that new and mighty power, new at least in the application of its might, which walks the water like a giant, rejoicing in its course, stemming alike the tempest and the tide,—accelerating intercourse,—shortening distances,—creating, as it were, unexpected neighbourhoods, and new combinations of social and commercial relations, and giving to the fickleness of winds, and the faithlessness of waves, the certainty and steadiness of a highway upon the land? Such a writer, though he might describe a ship correctly; though he might show from what quarter the winds of heaven blow, would be surely an incurious and idle spectator of the progress of nautical science,

who did not see in the power of steam a corrective of all former calculations,—he would act as foolishly, as the speculator on political science, who, descanting on the British constitution of kings, lords, and commons, should omit from his enumeration that mighty power of public opinion embodied in a free-press, which pervades and checks, and perhaps in the last resort, nearly governs the whole; such a man would surely give but an imperfect idea of the government of England, as it is now modified, and would greatly underrate the counteracting, salutary influence, against which, and to correct whose errors, the executive power has to exercise its wisdom.”

This glorious burst of patriotic eloquence, was worthy of the great mind of Canning. This description of the steam-boat, was never surpassed in *beauty*, and it would have been well had this illustrious British minister, and orator, thought but *five minutes* on the merits of the mechanic of Helensburgh, who applied this “new and mighty power” the steam-engine, to those gigantic uses which are so richly described by the author above quoted.

Why did not Mr. Canning speak of the worth of Mr. Bell, and secure to him at least £500 per annum for life, for his great labours? Brunel, Telford, and others, said he should have had twice that amount, for what he had done for Britain and the world. This opinion, posterity will confirm. Mrs. Bell still lives, and our rulers yet have an opportunity of doing something for the widow of that ingenious man, whom they neglected while living—although he went up to London, backed by all Scotland, with petitions from every great town and maritime county in this kingdom,—with the voice of Liverpool in his favour. He went thither in his old age, lame, and his finances exhausted in his country's good; but we grieve—we are ashamed to say, his journey was fruitless. Well do we remember the fears and terrors which many aged people expressed, when Mr. Bell first set out with his Comet on the Clyde. Some said he was fighting against nature, against God. No man can sail against wind and tide, said our grandfathers, and some of their sons and daughters too; and quoted that pro-

verb, as though it had been a Bible precept. But it is not, as every tyro in reading knows; it is an old saying, which the steam-boat has laid on the shelf, to rest for ever. Bell settled this. By and bye the ancients of the people, as well as the gallant young men and maidens, gladly took a voyage with him, and now the greatest coward in the world has no fear of the steam-boat; for they all know that these vessels are safer than a coach and immeasurably more pleasant. It would appear that the same astonishment and terror were excited on the banks of the Hudson and on the frith of that beautiful stream, when the American Fulton started his steamer there, in 1807—the model of which he got from Bell, and the engine to work which was built by our Bolton and Watt, as all the world knows, but which I repeat, to refresh the memories of those who oppose Bell's claims, and call the Americans the inventers. No: they were not. The following description is found in pages 172 and 173 of Colden's Life of Fulton, as quoted in the London Quarterly Review, No. 19: "The steamer had

the most terrific appearance from other vessels which were navigating the river, when she was making her passage. The first steam-boats, as others yet do, used dry pine-wood for fuel, which sends a column of ignited vapour many feet above the flue, and whenever the fire is stirred, a galaxy of sparks fly off, and in the night-time have a very brilliant and beautiful appearance. This uncommon light first attracted the attention of the crews of other vessels. Notwithstanding the wind and tide were adverse to its approach, they saw with astonishment it was rapidly coming towards them; and when it came so near as that the noise of the machinery and paddles were heard, the crews in some instances shrunk beneath their decks from the terrific sight, and left their vessels to go on shore; while others prostrated themselves and besought Providence to protect them from the approaches of the horrible monster which was marching on the tide, and lighting its path with the fires which it vomited."

Let us now take a short survey of steam-navigation from 1812 to 1843, and what

splendid vessels do we behold! How would Canning speak and think were he now living! Every kingdom in the world has now seen these *fire-propelled* palaces, that roam over every sea, and sweep up the rivers of China, of India, of Asia, of Africa, of America, and all other parts, with a regularity and quickness which surpass all our former conceptions of their power and utility.

From six-horse power, these wondrous barques have advanced, through the skill of our mechanics, and the enterprise of our princely merchants, to 800 horse power, and 3000 or 4000 tons burden. These "march upon the deep,"—these triumph in the "battle and the breeze," and are the *keys* to unlock every kingdom on earth, and to take our produce to every nation, and bring in return the products of all climes. They *plead* for *free trade*; and as my ingenious friend Bell once said to a monopolist, "Sir, my steamers will break down all your schemes—they will fight their way against all monopolisers, and you *cannot arrest their course!*" He was right in this,—sound, as in his plan of the Comet.

At a public dinner given to a number of gentlemen in the Baths Hotel, Helensburgh, some years ago, Mr. Bell was speculating in an animated tone on the probability of steam ships going to every land, and carrying our merchandise over the wide Atlantic, the Indian and China seas—to *all* nations. Several gentlemen laughed at his "*wild ideas*," as they termed them; but Bell spoke rationally; he saw *deeper* into things than the *laughers* did, and his opinion has been gloriously realised. I have this story from Mr. A. Broom, builder, with permission to publish it. It is worth narrating, as it shows how very "lingering" was the scepticism in the minds even of intelligent men, as to the power and boundless utility of steam navigation, many instances of which will yet be stated before this little work is completed.

Mr. Bell had many difficulties to encounter and overcome after he started his Comet; but that undaunted heroism, and that fearless perseverance which had led him on, notwithstanding the two denials at the Admiralty in 1801 and 1803, and the coldness of his

countrymen, still made him equal to the task. His triumphant success at length encouraged gentlemen of property to embark in the steam-boat building; and in a few years the Clyde swarmed with these noble vessels, which add new beauty to that lovely river; and thousands of strangers, as well as natives of Britain, crowded these swift fire-driven rovers of the deep. The beautiful watering-places on the frith of our romantic river were filled with persons from all quarters, and new pleasures and enjoyments of an innocent and rational character were created, which imparted health to the feeble, and strength to the debilitated. A journey to Glasgow, and a trip down the Clyde, in the Henry Bell steam-boat, became an object worthy of all, and the peasant and the prince alike enjoyed the luxury.

The engineers of the Clyde built steam-boats, and received orders from all parts, to furnish similar vessels for the other navigable rivers of the island, and ultimately for all parts of the world, where they are now displaying their might, and unfolding their use-

fulness in every quarter of the globe. Who can set bounds to their progress? Who can tell their value? On how many streams will their prowess be sung? As they ride the billows of the briny flood amongst "all people," will not the poets burst into some of their loftiest aspirations,—and will not they *think* of the "genius of Helensburgh," who first showed us how to conquer old Neptune, and to sail against his tides without the aid of canvas?

In 1840, the late Dr. James Cleland compiled his annals of the "Present State of Glasgow." Amongst many interesting tables is the following, which will show the encrease of steam-boat power on our celebrated river.

CLYDE STEAM VESSELS IN 1831 AND 1835.

ABSTRACT.

	1831		1835	
	Vessels.	Tonnage.	Vessels.	Tonnage.
Out sea Boats, . .	12	1947	18	3203
Goods and Passengers,	8	600	11	834
Passengers, . . .	25	1728	26	1927
Luggage, ...	7	431	8	470
Towing, ...	3	199	4	257
Total, . . .	55	4905	67	6691

A question may be started here, How came it to pass, that since steam navigation has continued to flourish from the building of the Comet to the present time, that Mr. Bell lost his money while his plans were triumphant throughout the world? I cannot do better than by stating, in his own words, the substance of a memorial addressed to certain of the nobility and gentry of the Scottish maritime counties, at the time (1829) when Glasgow was showing her sense of his merits, by a subscription. Prior to this, an appeal—but in vain, had been made to the British government, to remunerate him in some degree for his patriotic labours and great losses in the steam-boat enterprise, which enriched the nation, but ruined him.

“The memorialist, Henry Bell, humbly solicits your Honours to take his case into your serious consideration, whether he is entitled to a remuneration from government, as being the first person that brought into his country the power of steam in propelling vessels against wind and tide,—a fact which *cannot be disputed*. The great utility of steam

being applied to vessels, is now clearly proved to answer the end he at first represented, in the year 1801 and 1803, to the late Lord Melville, and to a number of naval gentlemen. As this new method of navigation is of such great benefit to the country, he cannot but think he has a claim on the nation for his services, and the great sacrifices he sustained, when others, who had ample fortunes, embarked in the building of large steam vessels. From the ready communication which steam navigation has opened to the western isles, and north of Scotland, besides several parts of England and Ireland, he trusts this appeal will not be made in vain."

The above appeal was productive of no benefit to Mr. Bell, as far as the government was concerned; but in 1828-9, Glasgow took up his cause in good earnest, when a public subscription was raised in the city, and the river Clyde trustees augmented his allowance from £50 to £100 per annum for life. They continue £50 of this as a yearly acknowledgement to Mrs. Bell, during her life,—and

long may she live in health and peace, as the representative of him whose name she bears!

It might not be out of place here, to remind the gentlemen of the highly respectable corporation of the great and enlightened city of Liverpool, that a strong appeal was made to them in 1829, to make the same allowance to Mr. Bell as the Clyde trustees have done; and I know it to be a fact, that several gentlemen of that great sea-port, deeply connected with its vast commercial concerns, strongly wished Liverpool to equal Glasgow in its support to their common benefactor,—Henry Bell. Mr. John Gladstone, the late Egerton Smith, the late Mr. Wallace Currie, and Mr. Fawcett, the celebrated engineer, and several other leading persons of Liverpool, did all they could in Mr. Bell's behalf. Will any person deny that Liverpool has benefited as much from steam navigation as Glasgow? Look at the animated scenes on the rivers Mersey and Dee,—the beautiful steamers that waft the thousands from shore to shore, and from one town to another, in the vicinity

of the largest and wealthiest sea-port in the world!

It is still to be hoped that Liverpool will remember that the wife of the "father of steam navigation is yet alive," and deserves the respect of all. For many years Mr. Bell was lame and infirm, from injuries he had received in his arduous and enthusiastic efforts to perfect that mighty system which will immortalise his name,—and in consequence of this, Mrs. Bell had in a great measure to manage his affairs; and wisely and prudently did she discharge these double duties—as all will testify who have the pleasure of knowing her.

It might be proper here, to take an historical glance at the several unsuccessful efforts which were made, and in their proper order to lay them before the reader, before the steam-boat was brought to stem the rivers, to battle up the channels, to ride against the tides, and to venture over the watery world on pleasure or gain. Different nations have contended for the honour of the first idea of the steam vessel. France, America, and even

Spain, have contended for priority; but matter of fact—and this is worth a world of arguments and assertions—gives the palm to Britain. History, true and faithful history, will confirm this. And at this moment we have more steam ships, better made and better conducted, than all the nations of the earth united. The steam-ship “Great Britain,” where can we look for her equal?

It is not our intention to dwell on the disputes of engineers and other ingenious men, as to the person in whose mind the steam-boat first prospectively arose, in its glory and grandeur. The secret would not be worth a rush-light, could it be ferreted out from its unknown cavern. It is the practical steamer that we value, and Bell built the first. Glorious Clyde was its first river of triumph! This is fact.

It was lately stated in a letter in the “Commerce,” Paris paper, that in the archives of Salamanca is found an account of the successful results of impelling vessels by steam, in 1543. The inventor was Don Blasco de Garraay, and the experiment was made in the

roads of Barcelona, in the presence of the emperor Charles V. and his court. It is said that the monarch rewarded the engineer for his discovery. We much fear that the boat, after many trials, was laid up as a useless, but pretty toy. Its smoke soon went out, and its fires were quenched for ever! The Spaniards were too *cautious* to spend money on a second one.

The steam-boat philosophers seem to have slept from 1543 till 1736, when Mr. Jonathan Hulls, an Englishman of Exeter, took out a patent for what he termed "a new invented machine for carrying vessels or ships out of, or into any harbour, port, or river, against wind or tide, or in a calm." This scheme ended in no practical good, and very likely the inventor would gladly have sold all his rights to this discovery, to any one who might be disposed to give him the money which he paid for his patent, but found no one willing to do it.

In 1781, a French nobleman, the Marquis de Jouffroy, made some fruitless experiments on the river Saone, at Lyons; but no

practical steamer repaid his trouble and expense.

In 1785, two Americans, James Ramsey, and John Fitch, attempted to accomplish what others had failed in, but they did not succeed, although warmly patronised by the great and good Washington, and other great men of that flourishing republic. These American engineers got patents from some of the States, but never reaped any benefit from their labours, which promoted no public good. Soon after this failure, Patrick Miller, Esq. of Dalswinton, near Dumfries, who had served in the British Royal navy, turned his attention to steam navigation, and published an account of his experiments in 1787. Some time afterwards (1788) Mr. Miller caused a vessel to be made, consisting of two keels, between which he placed a propelling paddle-wheel; this vessel was half decked, and could carry ten or twelve persons. Mr. Symington of Falkirk made a small steam-engine for this boat; and in the autumn of said year, Mr. Miller and Mr. Symington made the trial experiment with this vessel on Dalswinton



loch, when Mrs. Miller; the Rev. Archibald Lawson, of Kirkmahoe, and his lady; Capt. Grose, author of the *Antiquities*; Robert Riddle, Esq. of Glenriddle; Mr. Archibald Lawson of Glasgow; and two experienced operatives, attended to witness the capacity of the little steamer. This attempt was also a failure. Mr. Miller, however, with a noble enthusiasm, persevered in his plans; got a larger engine made at the famous Carron Works, and put it on board a gabbard, when experiments were made with it on the Forth and Clyde canal, the length of four miles, in presence of Mr. Miller, Mr. Stainton of Carron Works, and other gentlemen of mechanical knowledge. The scheme did not succeed, and no other trial was made to conquer the difficulties. The earl of Stanhope next entered the field in 1794, but his Lordship's knowledge of mechanical philosophy, although extensive, was not able to accomplish the desired end.

In 1801-2, Lord Dundas, the governor of the Forth and Clyde canal, where so many valuable experiments on the steam-propelling

system have had their birth, caused Mr. Symington to construct a vessel called "The Charlotte Dundas," for that canal. In March, 1802, the capacity of this steam boat was put to the test, in the presence of Lord Dundas; Mr. Spiers of Elderslie, his Lordship's son-in-law, and other intelligent persons, when the boat took two loaded sloops in tow, called the Euphemia and Active, carrying seventy tons burden each, and brought them through the long reach from Lock No. 20, to Port Dundas, being $19\frac{1}{2}$ miles in six hours, with a strong wind against them.

This was the most valuable and triumphant of all the prior attempts to accomplish the glorious object; and Mr. Symington complained of the narrow-minded views of some of the proprietors of this great canal, for not allowing farther trials to perfect that marine system which is spreading so rapidly, and performing such wonders on the rolling deep. These timid proprietors were afraid that the undulation of the water caused by the wheel placed at the stern of the steamer, would in-

flict injury to the banks of the canal; and therefore the "Charlotte Dundas" was laid up in a creek of the canal at Bainsford bridge, and there remained for many years, exposed to public inspection.

I have thus sketched the various attempts of Britons and men of other lands, to adapt steam to the purposes of navigation, on canal, river, and sea,—from the scheme of Don Blasco de Garraý, the Spaniard, in 1543, to that of Lord Dundas, the patriotic and enlightened governor of the Forth and Clyde navigation in 1802. These attempts, which cost a great amount of money to the noblemen, gentlemen, and engineers, who embarked in the enterprises, tended to keep the subject alive; but they ended in such a manner, as to cause even the strongest minded men greatly to doubt of their ever being of any national utility.

This was the opinion of that most enlightened philosopher, James Watt, Esq., to whom Britain and the world owe so much, for his admirable discoveries and improvements in the steam-engine, which, as to every great

practical purpose, may be said to be the invention of this illustrious Scotsman, whom Greenock may well be proud to call her son; —for there he was born, the 17th day of January, 1736, and died at Birmingham 25th August, 1815, aged 83, beloved by all for his moral qualities, and admired for the splendour of his intellectual faculties, which will not be forgotten while that master-piece of man's power shall display its might in the factory and the foundry, and its sublimest purposes in the mighty ship, which battles with the stormy ocean, and triumphs on the headlong billow which rolls in grandeur from the dark domain.

Having in another page of this little work, quoted Mr. Canning's splendid eulogy on the steam-ship, which shows the merits of Henry Bell, I shall here give the reader an extract from the eulogium delivered by Lord Jeffrey, taken from the *Encyclopedia Britannica*, on the genius of Watt:—

“We have said that Watt was the great improver of the steam-engine; but in fact he was, as to all that is admirable in its struc-

ture, or vast in its utility, its inventor. It was by his inventions that its action was so regulated, as to make it capable of being applied to the finest and most delicate manufacture, and its power so increased, as to set weight and solidity at defiance. By his brilliant contrivances, it has become a thing stupendous, alike for its force and its flexibility, for the prodigious power which it can exert, and the ease, and precision, and ductility with which it can be varied, distributed, and applied. The trunk of an elephant that can pick up a pin, or rend an oak, is as nothing to it. It can engrave a seal, and crush masses of obdurate metal like wax before it,—draw out, without breaking, a thread as fine as a gossamer, and lift a ship of war like a *bauble* in the air! It can embroider muslin and forge anchors, cut steel into ribands, and impel mighty vessels against the fury of the winds and waves.

“It would be difficult to rate the value of this invention to our country. It has armed the feeble arm of man, in short, with a power to which no limits can be assigned, completed

the dominion of mind, and the most refractory qualities of matter, and laid a sure foundation for all those future miracles of mechanical power, which are to aid and reward the labours of after generations. The blessing is not only universal, but unbounded; and the fabled inventors of the plough and the loom, who are deified by the erring superstition—perhaps gratitude of their rude contemporaries, conferred less important benefits on mankind, than James Watt, the inventor of our present steam-engine.”

Mr. Henry Bell had not the great mental qualities of Mr. Watt. His school education was very defective, as noticed in a former part of this work, while the illustrious improver and inventor of the steam-engine had those facilities at school and college, which his own ardent and undeviating love of scientific study turned to the most gigantic purposes of good for the human family. Unite the labours of Watt and Bell, and what two Britons have done more to aid the commercial greatness, and the mechanical glory of our country?

The starting of Bell's Comet on the Clyde in 1811-12, forms an illustrious era in our history,—and none but that Being, from whom all knowledge primarily comes, can foresee the extent of the benefits which the philosopher of Birmingham, and the mechanic of Helensburgh, have, by the crowning mercies of the Parent of all worlds, conferred on their nation, and on their species. These we shall enter into more in the concluding reflections.

It has been formerly stated that Mr. Bell aided the late Mr. Fulton of America with the plans and drawings of the steam-boat, and from which the American engineer would undoubtedly avail himself, in building the first steamer which graced the Hudson river, and from which brother Jonathan dates the birth of his steam-navigation.

The following letter from Mr. Bell to Mr. John McNeill, civil engineer, is interesting and conclusive:—

"HELENSBURGH, 1st March, 1824.

"SIR,

"I this morning was favoured with your letter, and reply to your inquiry respecting the late Robert Fulton, the American engineer. His father was a native of Ayrshire; but of what town, or district there, I cannot say. He went to America, where his son, Robert, was born, who was well educated, and showed an early inclination for engineering. He came at different times to this country, and stopped with me for some time. He published soon afterwards a Treatise on Canal Declining Railways. I have this book on hand, but you may obtain it by applying to Mr. Taylor, bookseller, London, price 2ls.

"Mr. Fulton published this work in England, in 1804; and on his way to France, called on me; and also when he returned. He was employed by the American government to come to England, to take drawings of our cotton and other machinery, which quickened his desires after all the engineering branches; these he took up very quickly. He was also

a good painter, and excelled in miniature-likenesses. When I wrote to the American government on the great importance of steam-navigation, and its admirable adaptation to those noble rivers, they appointed Mr. Fulton to correspond with me. From this matter-of-fact statement, you see the Americans got their first insight of this system from your humble servant,

(Signed,) “ HENRY BELL.”

The above letter throws the true light on the history of the *Robert Fulton* steam-boat, the engines of which were built, at Mr. Bell's suggestion, by Messrs. Bolton and Watt of Birmingham,—the most renowned engineers in the world.

Mr. Miller, son of the ingenious Miller of Dalswinton, of steam-boat celebrity, made a keen attack on Mr. Bell, in the *Edinburgh Courant*, of 3d Sept. 1827. That gentleman did himself no credit by this attack on the planner of the *Comet*, and showed he understood very little of the history of the system. Mr. Miller should have proved that Mr. Bell

did not build the first practical steamer. But who will attempt this task? All the reading world knows that the Comet was the pioneer to the European steamers; and Mr. Bell's friends and defenders stand upon a rock, against which, all the assaults of his opponents are as fruitless as would be the attempt to overthrow Dumbarton Castle with snow-balls!

I would speak respectfully of Mr. Miller, whom I believe to be a gentleman of worth, and for his father's sake, abstain from severity,—that father, who, like Bell, expended so much money for so noble an object, in steam-boat experiments, but did not succeed in the practical steamer.

Bell's success was decisive, and the Clyde is yet adorned with the noblest of those vessels, which will send his fame into every land. But we shall let Mr. Bell speak for himself; and the reader will see how completely he cuts up Miller in the following graphic letter, published also in the Edinburgh Evening Courant, in reply to the unworthy attack made upon him.

“BATHS, HELENSBURGH, Sept. 1827.

“SIR,

“I WAS amused, but cannot say, instructed, by the perusal of an article in your journal of the 3d instant, headed ‘Steam Navigation,’ by Mr. Miller, in which I am introduced, in consequence of ‘the continued and unwarrantable pretensions’ made by me, in claiming the ‘adaptation of steam to navigation.’ I have no desire to shun investigation, but have uniformly invited inquiry, and were it not for my advanced age, and from the inconvenience arising from lameness, caused by prosecuting and turning to practical uses this great system, I should have had my claims, so far as they go, decided long ere now, and thus have put a stop to farther unnecessary statements, either from Mr. Miller, or any of his coadjutors. I trust, in what I conceive to be my duty at this time to state, in reply to his article, I shall have no occasion to lose my temper, even though it is tempted to be excited by Mr. Miller, and in a way too, which strongly resembles malice. Mr. Miller states that it is in justice to the

memory of his father, that he intrudes himself again upon public notice. I am glad to think he thus venerates the memory of his worthy father; but he ought surely to take care that he does not render to another injustice, while thus anxious for the 'inventive genius' of his much respected parent, who, I am certain, would not thus have come forward to attempt to blight the rewards of ingenuity, enterprise, and industry, and whose statements, at all events, would have been characterised by gentlemanly feeling, candour, and honesty; none of which have I seen in his son's letter—and shall now give proof. Mr. Miller evidently appears to be in great ignorance respecting his father's improvements in steam navigation, and in fact does not do his father the justice he attempts; for what unprejudiced reader of his article can draw from it any conclusion, but that his father seems to be indebted more to Mr. Symington, whom he employed, than to any decided invention of his own; for after Mr. Symington had constructed, under his superintendence, the machinery on board a

pleasure-boat, and then, on a more extended plan, tried it on the Forth and Clyde Canal, he does not blame the machinery got under the personal instruction of Symington, at Carron, but the construction of the vessel! Though pleading the practicability of his scheme,—what does he do? Does he attempt the same again with a firmer built boat? Does he show any desire to benefit his country by a third and successful attempt? Does he succeed in completing his maritime scheme, and in sending his vessels over the mightiest rivers and the stormiest seas? No: the apparatus is unshipped, and laid up in the store-house of the Carron Company! And thus Mr. Miller admits that his father's experiment stopped. Symington evidently appears, (even from Mr. Miller's showing,) in a much more favourable light than Mr. Miller of Dalswinton; for we are told what all know to be true, that he was employed by the late Lord Dundas, the governor of the Forth and Clyde Canal Company, to direct a series of experiments, which his Lordship was then setting on foot, for towing vessels along the canal, on the late

Mr. Miller's plan. Strange that his lordship should overlook the inventor in these attempts, and engage a person that was employed by Mr. Miller. We may well surmise here, that a person of Lord Dundas' experience knew the best man to fix on to accomplish an object which he so strongly desired. He overlooked Mr. Miller for Mr. Symington; and doubtless he acted right in this matter. Yet what was the final result? That the combined skill and ingenuity of Messrs. Miller & Symington failed of their darling object. Why does not Mr. Miller state in his attack upon me—pointless as it is—that this last experiment cost the Forth and Clyde Canal Company, upwards of £6000? when, after all this expense, that respectable Company claimed no success for their experiments! The 'Charlotte Dundas' was laid aside as one of the lions of the great canal, and is still used as a dredge-boat.

“To deny that I was not to be benefited in the completion of my scheme by Mr. Miller, Mr. Symington, and others, and they by me, would show a want of candour which, I trust,

has never yet characterised any of my proceedings. I have innumerable witnesses to show that honour has been awarded me, by my countrymen, for having contributed to their pleasure, and the commercial glory of Great Britain, and her boundless dominions, in every part of the world, through steam-power.

“ It is a pitiful display of weakness and malice in Mr. Miller, to chuckle over a letter of mine, in which he finds bad spelling, and incorrect grammar, thinking by this, to produce contempt, and want of confidence in my rightful claims. This will recoil on himself; and the just and generous of all names and grades of society will feel indignant at such low shifts to injure me. I could quote many instances of engineers, and others, who, like myself, had a scanty education previously to their advancement in the world, which they felt, and lamented in after life; but still this deficiency prevented neither them nor myself from accomplishing for our country’s good, that which many a good penman, and finished grammarian, could never have achieved; and

I trust that Miller, who, I understand, is an officer in his Majesty's service, may wield his sword as successfully in his country's cause, as I have done by my talents, in completing my scheme, and bringing that into operation, which will be of more lasting honour to my country, and benefit to my species, than the achievement of many victories, and the gaining of naval and military honours and favours.—I am, Sir, Yours respectfully,

(Signed) "HENRY BELL."

The foregoing letter, from the founder of steam-navigation, makes terrible havoc of Mr. Miller's puny statements, and I think that gentleman must have felt something like regret that he meddled with a subject, of which, as Mr. Bell justly remarks, "he knew little." He may be a good officer in the king's service, but steam-boats are things which he had better let alone; and to assail the title of Mr. Bell to the above designation, is a vain work for him, or any other man. Our own government has settled this matter in Bell's favour,—although scanty was their

pittance for it ; and in Scotland, it is well known that Bell's Comet of 1811 was the first steamer of any use to mankind, and that from it all others sprung. It is worthy of remark here too, that the radical improvements on Bell's plan, are as to the propelling power of the engine,—with the paddles working like those of the "Comet." In shape, size, and construction of the vessel since 1811, there are undoubtedly many great improvements ; and our admirable engineers of the Clyde have wisely availed themselves of every hint, to carry out the first design to the utmost perfection. The above facts are acknowledged by the best engineers of our country,—with the Brunels and Napiers at the head. The improvements consist in the encrease of strength in the engines. Bell's was only six horse-power—we have them now from that to a thousand-horse-power ; and there is no saying to what strength and size these noble sea-rovers may arrive. The Chinese, and the "men of Tyre and Sidon," Acre, and Beyrout, will never forget their dreadful power to destroy forts, and lay cities in ashes ;

but we firmly trust a nobler work is theirs—to diffuse civilisation, truth, and peace, industry, commerce, and prosperity, through the nations. This is Heaven's design in kindling the genius of man to invent them—and let not man madly fight against his gracious Creator, to turn a blessing into a curse. The mere worldly politician may dwell with pleasure on the power of the steam-ship to crush foreign nations; and because England is emphatically a band of scientific engineers, dream of universal conquest to his country, through that steam-power which blew up the Syrian fort, and produced such terror, wonder, and dismay through the self-styled, but now undeceived, celestial empire of China; but the Christian philosopher, and the patriotic senator, will contemplate this "new and mighty power," as an instrument of good to mankind, and as throwing a highway over the seas, into every land, in all seasons, and against all opposing force of wind and tides. In this spirit I wish my little work to be composed, and such a spirit would best accord with the oft expressed sentiments of the

late Mr. Henry Bell, who said that his steam-boats would unite all nations in peace. A pretty long article appeared in the Greenock Intelligencer, of 20th August, 1834, which is said to be copied from the Ayrshire Reformer, of April 1833. The writer of said article attempts to prove—but miserably fails, that the late Mr. James Taylor, of Cumnock, who was formerly a tutor in the family of Patrick Miller, Esq. of Dalswinton, was the inventor of the steam-boat, because that gentleman assisted Mr. Miller in his steam-boat experiments on Dalswinton lake. I have seen the shell of that little boat, in 1829, on the waters below Dalswinton house, and felt respect for Mr. Miller, and for all who aided him in his noble pursuits, amongst whom, I believe, Mr. Taylor stands conspicuous. But we would again impress upon the friends of truth, that every experiment was a complete failure; and when Mr. Taylor tried to urge Mr. Miller to make another attempt in the steaming line, that gentleman declined the request, from a conviction of inability to bring forth a vessel which could venture on

the sea, and the river, and answer all the purposes of our mercantile ships, which link the nations in one. Bell did this before any other man in Europe perhaps conceived it possible. We are certain that the British Admiralty did not believe in the system in 1803 or 1806. Do not these facts tell on the merits of the engineer of Helensburgh?

It might be proper now to give a short outline of the movement which Glasgow made, in 1828—29, seeing that the government unaccountably neglected to reward him. We have mentioned already, that a series of letters, signed “E. M.,” and published in the Glasgow papers, were well received by the public, and these letters were copied, with friendly comments, into many of the first journals of England and Scotland. The editors, with few exceptions, were Bell’s warm friends, and had his thanks for their services. The River-Clyde Trustees, who, for some years, had allowed Mr. Bell £50 per annum, now added other £50, which, with about £500 of subscriptions, which were raised in the city, with individual contributions from

neighbouring places, showed, that near home, his claims were felt as they ought to be. It was hoped that Liverpool would have done nearly as much as Glasgow, but the corporation of that great sea-port would not move in the matter. They said, through their town clerk, that there was no precedent for such a case ; but a glorious occasion was then presented to create a precedent, in the noble steam-boats which were plying up and down their rivers, and tugging out their princely merchant-ships into the deep broad waters of that hitherto unconquered ocean, on whose heaving bosom they were able to pursue their voyage to distant lands. The corporation gave £20 as a donation, to aid the subscription, and here the application ended. William Fawcett, Esq. civil engineer, of Liverpool, gave the same sum out of his own pocket, and otherwise interested himself in behalf of Mr. Bell, as did Messrs. Gladstone, Currie, Alston, Egerton Smith, and other gentlemen by subscriptions, and their personal recommendation of the patriotic object, amongst their friends. Manchester did nearly

the same as Liverpool. It was intended to visit the former town at some future period, but the illness and death of Mr. Bell put an end to that idea. At the suggestion of several gentlemen, who have read and strongly approve of them, we are induced to abridge two articles which were written respectively to the nobility, gentry, merchants, engineers, &c. of Manchester and London, in 1829, and published in the journals of those great towns, the emporium of commerce, and the seat of Royalty.

“DOWNING STREET, LONDON, June, 1829.

“MY LORDS AND GENTLEMEN,

“IT would be a waste of words, and a misapplication of time, to dwell upon arguments and illustrations to show the vast importance of steam-navigation to all the interests of Great Britain, and the world. Its advantages are self-evident on every navigable river, in every sea-port, in every channel, where our merchandise arrives and departs, and where our merchants no longer need to wait for favourable winds and friendly tides, but

are wafted against both, with more speed and safety than the best mail-coach could ever accomplish. Without pretending to the spirit of prophecy, we may adopt the words of an eloquent writer, who justly observes, that 'no man can yet anticipate the extent of comfort, wealth, and power, which may accrue from this discovery to our nation, and to the world at large.' We know that several valuable experiments, by different engineers, were made prior to Mr. Bell's, but they were only ingenious attempts,—they ended in no practical good. Henry Bell gave us the first sea steam-boat in 1811, the 'Comet.' It has been justly observed by a philosophic writer, that to the world the value of an invention lies entirely in its practical use. Apply this remark to Bell's case, and how conclusive does it appear! The Almighty has in various ages, and in all nations, raised up great and ingenious men, as the common benefactors of their species; hence we read of the worthies of Israel—of the sages of Egypt—of the moralists and philosophers of Greece and Rome; hence we read of the mighty of our own

land—our glorious island home ! whose names are encircled with a radiance which will never fade. And, my lords and gentlemen, may I not say that the poet and historian who shall relate the deeds of a Newton, a Locke, a Franklin, a Priestley, a Playfair, and a Watt, will not forget Henry Bell, whose ardent genius ‘many waters could not quench.’ The Lord Provost of Glasgow; James Ewing, Esq.; Dr. Cleland; William McGavin, Esq. and other influential gentlemen of that city, having commenced a subscription for Mr. Bell, and given their names, with other gentlemen of public celebrity, in a document which will be affixed to this article, it is hoped, that Manchester and London will do something for the introducer of the steam-boat into Britain.”

The following short note from him to the author, will be in place here, and tend to enlighten my countrymen:—

“ HELENSBURGH, 8th December, 1828.

“ DEAR FRIEND,

“ HAVING been much disappointed, by the

British government neglecting my claims so long, I consent to a subscription, as proposed by my friends in Glasgow, and thank you for your determination to carry my memorial into execution. I highly approve of all the preliminary steps you have taken, in conjunction with, and the kind aid of, the honourable Alexander Garden, Lord Provost of Glasgow, James Ewing, Esq.; Dr. Cleland, William M'Gavin, Esq. and other distinguished persons,—and do hereby authorise you, in my name, to raise subscriptions agreeably thereto, in Glasgow, Edinburgh, Liverpool, London, Bristol, Dublin, Belfast, and other places, where you may think there is a chance of success. I hope that the conveners and sheriffs of the counties will exert themselves in my behalf, as they are all interested in the encreasing importance of steam navigation.

“ I am,

“ To Mr. E. Morris, }
Glasgow. }

“ Yours sincerely,
“ HENRY BELL.”

The following note will show the reader how strong were the claims of my friend, as

the names it embraces are amongst the most illustrious in our nation, for science, learning, experience, wealth, and moral worth. These gentlemen, in addition to their own private subscriptions, were ever ready to tender their advice to Mr. Bell's friend in his exertions, in the different places in Scotland, England, and Ireland, which he visited:—

“GLASGOW, 5th March, 1829.

“WE, the undersigned, feeling solicitous for the success of the subscription in behalf of Mr. Henry Bell, the practical introducer of steam-navigation into Great Britain, do hereby respectfully recommend Mr. Edward Morris, who is appointed to carry into effect Mr. Bell's printed memorial, (written by Mr. James Ewing, of Glasgow), to the noblemen, gentlemen, or any public bodies to whom he may apply for subscriptions; and also to the leading magistrates, and other influential persons, of the different towns, where it may be thought advisable to make an appeal, to promote this patriotic object. Signed by the honourable Alexander Garden, Lord Provost

of Glasgow; James Ewing, Esq. chairman of the Chamber of Commerce; James Cleland, Esq. LL.D; William M'Gavin, Esq., Banker; Archibald Campbell, Esq. of Blythwood, M.P. for Glasgow; Robert Downie, Esq. of Appin, M. P. for Stirling; Sir M. S. Stewart, Bart., M. P. for Lanarkshire; Joseph Hume, Esq. M. P.; Sir John Sinclair, Bart.; Sir Hugh Innes, Bart., M. P.; Sir Henry Parnell, Bart., M. P.; Walter F. Campbell, Esq. M. P.; Thomas Telford, Esq.; Sir Isambard Brunel; Thomas Rhodes, Esq. Civil Engineers, London; Egerton Smith, Esq.; John Smith, Esq., editors and proprietors of the Liverpool Mercury; John Gladstone, Esq., of Seaforth House, near Liverpool; John Thomas Alston, Esq. Liverpool; William Fawcett, Esq. Civil Engineer, Liverpool. Thus, my lords and gentlemen, I have now briefly, and frankly, laid before you, the strong claims of Mr. Bell. I respectfully solicit your support for him, and remain, with all regard, Yours,

“EDWARD MORRIS.”

Before proceeding to raise private subscriptions in London, another attempt was

made to see if the government would yet do any thing. The Duke of Wellington, Sir Robert Peel, and Mr. Herries, the Chancellor of the Exchequer, were written to, and also several members of parliament. Mr. Campbell, Mr. Downie, Mr. Hume, and Sir Hugh Innes, zealously applied themselves, and advised the writer of these memoirs to wait and see if government would move in the matter. It was at that period when the Catholic question was under discussion, and men's minds were intensely taken up with it. Two or three days after that righteous measure was carried triumphantly through both Houses, Mr. Bell's friend called again at Mr. Herries' office, and the reply was—short, stern, and comfortless—“*Nothing can be done for Mr. Bell.*” Nothing! This was trying enough, after waiting patiently several weeks, and hoping the best from their saying, “*Wait.*” What was now to be done? The late Mr. Canning, (who had he been then alive, would, it is believed, have given something worthy of Bell's claims) had written an order in the treasury, 1827, to pay to Mr. Henry Bell, on

his order, *two hundred pounds*. Mr. Humewrote to Mr. Ewing of Glasgow, the able friend of Bell, informing him of this donation of Mr. Canning's. Mr. Bell's leading friends in this city thought it best to delay lifting the money, and to make another effort to induce Mr. Canning to use his powerful influence as Premier, to make this an annual sum for Bell's life. With this, he and his friends would have been satisfied; and what would have been such an insignificant sum to a mighty nation like ours—the mightiest that ever yet existed in the world—to reward the national services of him who conquered wind and tide? Mr. Canning, soon after he wrote the above, sickened and died: his eloquent tongue, and brilliant pen, were no more to be heard and felt, but his enlightened views were soon to triumph, and others would catch his mantle, and glow with his fire. We need men like him now. Mr. Bell's friend went to the treasury, saw a very excellent gentleman there, Mr. Cotton, and told him that he called for the purpose of getting the £200 ordered by the late Mr. Canning, to the

father of steam-navigation. After some remarks and natural questions, Mr. Cotton went into an apartment, and searching among a large pile of papers, found a small slip of paper, in Mr. Canning's own handwriting, and holding it up, said, "Sir, it is fortunate for your friend, Mr. Bell, that I have found this bit of paper, for if I had *not* found it, we could not have paid the money." The next morning a £200 bank of England note was received from the treasury, which in an hour afterwards, enclosed in a letter, franked by a M. P. (the penny postage was not then in being) was on its way to Helensburgh; and this was all that Mr. Bell ever received from his government, for services of more value than many Waterloos. After this last appeal to government was terminated, the leading engineers of London were waited on. Brunel, Telford, and Rhodes, took a generous interest, and to these gentlemen the author of these pages was much indebted for their wise counsels, at a time when he had much to discourage him in the arduous undertaking. Some of these untoward things

it may not be out of place to mention here. A still lingering prejudice existed against this system of navigation. Men of the old school, both of the royal navy, and commercial fleets, had yet a strong notion that steam-navigation was a national bore ! One great merchant, in a great seaport which shall be nameless, from the respect I bear towards it, it being only fifty-four miles from my own native town, on the banks of Severn, said, "Sir, you are contending for too much for Mr. Bell ; the steam-boat was long conceived before the ' Comet ' appeared ; it was only placing one of Mr. Watt's engines on board a vessel, properly modeled, and the thing was done ; *it* was a steam-boat. It required no great genius to do this. Mr. Bell, no doubt, was a clever man, but his friends were contending for too much." I reminded this great ship merchant of the story of Columbus and the egg, and the Spanish Dons. "Oh ! it was a simple thing to make the egg stand on its end, on the table." "Do it then," said Columbus, "do it, my Lords." But not one could, till Columbus showed them how. Henry

Bell was the British Columbus; he showed how steam could conquer the sea. "Yes," said the ingenious Brunel, "Bell did what we engineers all failed in—he gave us the sea-steamer; his scheming was Britain's steaming." This is a just view, from a great man. When I told Henry Bell of these remarks of Sir Isambard Brunel, his countenance brightened up with his own good-humoured smile, and he said he was proud of that wise man's testimony. Mr. Telford united with Brunel in this opinion; and the reader will see these two sons of genius coupled together in the note concluding the address to the London nobility and gentry. The merchant alluded to, however, saw his error. The egg story touched him, and the laughter of his friends around compelled him to do the same, although at his own expense; and he said, "The Corporation, Sir, have voted £20 for Mr. Bell." If the gentleman should cast his eyes over these pages, I think he will say, "This account is a true one, and is worth recording." Another humorous scene occurred in the mightiest city of the world, in B——

Square. The honourable and Reverend Mr. *Thinklittle* said, "No, Sir, I will give you no subscription to Mr. Bell, for inventing the steam-boat; but I will give *two* guineas, if you can succeed in destroying it. I look upon steam-navigation as the greatest curse ever inflicted upon England. Of course I cannot support this subscription, to reward the individual who was the prime mover in this evil, which has turned the people's heads. It draws them from home—it is such a temptation to travel, that they are always flying to these boats." Now mark, gentle reader! the above is no romance; they are the words, or nearly so; they are the very sentiments of a beneficed Clergyman of the Church of England—of a classic scholar—a logician—a man who had dipped in Greek and Roman lore, and perhaps won prizes at those fountains of instruction, Oxford, Cambridge, or Eton; or perhaps at the more rational seats of learning, Edinburgh and Glasgow. These sentiments he uttered to the author of this work, in 1829. When he had spun out his yarn, rotten indeed, every thread of it, I re-

plied, "Sir, are you joking with me, or are you serious?"—"Oh! certainly serious, I mean what my words imply." "Then, Sir, you and I differ, as far as the poles are asunder. Can you prove that system a curse which has made a highway over the ocean, as safe in winter as in summer; which wafts you pleasantly over the opposing tide; cuts through the billows, or rides them with as much ease as you can your beautiful hunter, and will take you to every land where man is to be found, or knowledge gleaned? Is that system a curse, which, as the instrument of infinite wisdom, and boundless goodness, is destined to unite all nations; to afford perpetual and universal facilities to the Christian missionary; to the scientific philosopher—to the enlightened agriculturist—to the lover of nature and man—to every one who wishes to do good, and receive good; which affords to the mercantile and manufacturing interests of our great nation, means of transit over the ocean, to an extent hitherto unknown to man?"

Here the dialogue ended. The gentleman

made no reply, but said he would not support the subscription. I have no doubt that by this time he has changed his tone, and that the beneficial triumphs of steam-navigation in every land, has taught him how erroneous was his former judgment. He has read of the wonders of the steam-ship over the swelling ocean to America, to India, and to China, and in the last mentioned country opening up an intercourse with 300 millions of ingenious and industrious human beings, who have been isolated for thousands of years from the rest of mankind.

This is a golden opportunity for England opening an honest and lucrative traffic, at the same time excluding that cursed trade in poison, which is any thing but creditable to our country, in reference to China. It is to be hoped that temperance-societies, and other reforming institutions, will vigorously move against this accursed system.

The London Times has been honourably conspicuous in denouncing this drug; and its thunder has been well directed in this affair, which has caused the honour of our land to be

evil spoken of. Thinking Christian men will see the propriety of these remarks.

I shall mention another case of a great political and literary character, whom I visited, and who received me kindly.

Being an active M. P. he and his secretary were busy writing. He laid down his pen, and said, "Oh! you have called about Mr. Henry Bell, who is a deserving and ingenious man, I have no doubt; but, Sir, I do not approve of steam-navigation; the steam-boat has injured Ireland much. Dublin is suffering greatly through it; therefore you see I cannot consistently subscribe to Mr. Bell's fund, although I wish you success."

I expressed my astonishment, that a man of his education and experience, should entertain such absurd opinions concerning the steam-boat, which would ultimately benefit Ireland most essentially, as it links that beautiful island with England and Scotland, by a few hours' sailing. My argument was strengthened by the consideration, that a better system was now dawning on that long suffering isle, which would henceforth be put upon an

equality with the sister countries—as it well deserved.

Reader! that man was Daniel O'Connell, Esq., M. P.! I doubt not should he cast his eyes over these pages, he will say that he has changed his opinions since that period; Ireland is not cursed, but blessed by the steam-boats. I got two franks for my letters, and then wished him good morning, and with a hearty shake of the hand, departed.

Having now given a few cases expressive of the prejudices of even learned men against this system, which it is hoped will enliven the work, I shall now turn to the bright side, and give a few testimonies from men of science, intelligence, and moral worth, which will afford the reader a good opportunity of estimating the value of Bell's services.

Among the letters of introduction to gentlemen in London, I had one to the late Archibald Campbell, Esq., M. P., from Dr. Cleland. That gentleman was very attentive to me, and did all he could to forward my mission in London.

Mr. Bell also wrote a letter to his old friend

Thomas Telford, Esq., the celebrated engineer of Menai bridge, whose excellent moral qualities corresponded with the genius of his mind. This excellent man subscribed five guineas, and gave me a letter of introduction to the London Mechanics' Society, of which he was president, and who raised for Bell £11, chiefly from the young men who met weekly in their Institution, to hear lectures, and discuss the subjects connected with the mechanical arts. To those young men I still entertain feelings of esteem for their kind attention to a stranger in London.

Passing along Blackfriars Street, my eye was arrested by a brass plate, with "I. Brunel, Civil Engineer." I rang the bell, but was told that the gentleman had just gone out. I wrote a note, saying I would call the next morning at half past nine. I kept my time, and the moment I sent in my card, Mr. Brunel came to the door and welcomed me in, with a warm shake of the hand. I explained to him my errand to London. He looked over my subscription list, containing all the Glasgow and other names from the commence-

ment. He then said, "It should not have come to this,—the British government should have given Mr. Bell £1000 per annum, twenty years ago; and what though he should scheme it all away, it would be for our good. He worked nobly for his country; he accomplished what others had failed in. The government, I repeat, have missed a good opportunity by neglecting Bell; but better the subscription than nothing," and then put down his name for a handsome sum, and wished me not to be discouraged, but persevere. "You have a good cause in hand." His son, Mr. Charles Brunel, then came in, to whom the father kindly introduced me, and said, "My dear Charles, this is a friend of Henry Bell, of whom you have often heard me speak,—the planner of the first practical steamer. The son responded to the sentiments of the father, and said, "I am glad to see him, we must aid him in his object."

After this interview with Sir Isambard Brunel, I went to the Admiralty, having the day before written a letter to Lord Melville.

1

I had an interview with the honourable Captain Dundas, private secretary to Lord Melville. He was very attentive and polite. I mentioned that the late great Admiral Lord Nelson, and Lord Melville, were the only two members of the Admiralty who encouraged Mr. Bell, when he brought his models before that illustrious board in 1803,—and that had the other noblemen and gentlemen, who formed that marine board, seen with the same faith, Mr. Bell's scheme would have been adopted, and he would at once have put steamers on the Clyde, and other rivers, and sent them over the seas, and through the channels, instantaneously, aided as he would have been (and as Fulton was, in 1807, by America) by parliament, to carry into full operation that mighty power, to which no human limits can be set. These statements, Mr. Dundas said, were correct, and he gave me £10 for Mr. Bell, as Viscount Melville's subscription, and as a testimony to Bell's just claims upon the British government as the father of steam-navigation.

From the editor and proprietor of the Sun

newspaper, I received great support. This gentleman, Murdo Young, Esq., had often stated Mr. Bell's merits; and, when I waited upon him with my address to the London nobility, &c., he at once gave it a place in his first publication, and ordered the foreman to give me twelve slips for the other journals. The Courier, Times, Morning Chronicle, Advertiser, Atlas, and others, inserted the addresses. Indeed, the Press was very friendly, with one or two exceptions, and these not worth stating; because, if one channel was denied, two or three others of more power could be had in their place.

Of all the provincial papers, the Liverpool Mercury, took the most zealous lead. Eger-ton Smith, Esq., (now in another world) editor of said journal, displayed great anxiety; and his partner, Mr. John Smith, was equally friendly.

The following resolutions were drawn up in the Mercury Office, in connection with a meeting held at Liverpool, 1829, to promote Mr. Bell's subscription, of which John Gladstone, Esq. of Fasque, was chairman. Moved

by J. T. Alston, Esq., and seconded by Eger-ton Smith, Esq.—

1. “That it is the opinion of this meeting, that Mr. Bell is justly entitled to the gratitude of his fellow countrymen, by the invaluable services he has rendered not only to Great Britain, but to the civilised world, by the practical introduction of navigation by steam in the intercourse of nations,—his claim to which is amply borne out by the 5th Report of the Select Committee of the House of Commons, on Steam Boats; and by other unimpeachable documents.”

Moved by Mr. William Wallace Currie; seconded by Mr. John Smith of the Liverpool Mercury,—

2. “That while the empire at large is reaping immense benefit from this system of navigation, there is probably no town in the kingdom whose interest is more essentially promoted by it, than the great sea-port of Liverpool; and this meeting therefore confidently call upon their fellow-townsmen, as well as the inhabitants of other sea-ports and manufacturing towns, for their support and zealous

co-operation, in forwarding the object for which the meeting is this day assembled.

(Signed,) "JOHN GLADSTONE, Chairman."

The chairman then recommended the gentlemen present to give every assistance and support to Morris, Mr. Bell's friend, and spoke of the strong claims of Bell on the owners of steam-boats, on engineers furnishing the necessary apparatus, and on Merchants and other individuals.

Had Mr. Miller's son of Dalswinton seen the above resolutions, with many others of a similar import, when he made the keen attack upon Bell in the Edinburgh Courant?

Mr. Gladstone's testimony is of great weight,—his rank, his wealth, his intelligence, and great experience as a merchant; in fine, his extensive reading on all subjects, well qualify him to give a weighty testimony to the value of the services of that individual, whose labours I am now unfolding to my countrymen. Then Messrs. Egerton, John Smith, Mr. J. T. Alston, and Mr. W. W. Currie, son of the biographer of Burns. These are classic scholars, and deservedly

esteemed in the commercial world for their great experience. The steam-boat, indeed, is such a magnificent and all-important invention, and its utility to man so great, that no wonder there should be many competitors for the merit of its invention. But Mr. Bell stands on the hill-top, and none can disprove the claims which a thousand pens, and a thousand tongues, award to him,—confirmed by his own government. We do not claim for his prolific brain the absolute merit of the “first idea” of this system.

Jonathan Hulls, of Bristol, an Englishman, has the merit of its invention, in 1736. But he was not supported, and his patent was laid aside. It was reserved for the Clyde, not the river Severn, to see the first steam-boat on its bosom; and Henry Bell, the Scotsman, was the planner of it,—and the men of Glasgow may well be proud of this, as they truly are.

I shall here add other two letters on Bell's claims,—one from a worthy man, once an ornament of Glasgow, but who now sleeps in that beautiful burial-place the Necropolis,

overlooking a romantic glen, from which a bird's-eye-view, worthy the stranger's notice, is presented of our noble city. I mean the late William M'Gavin, Esq., banker, author of several works of great merit, with a style of composition energetic as Cobbett's, but untinged with the vulgar personalities of that celebrated Englishman. "Mrs. Murray and her children," is a very popular little work of Mr. M'Gavin's. "The Protestant" is talented, but perhaps is too severe in its tone; more adapted to fortify his friends in their Protestant views, than to convert Roman Catholics from the errors of their "human creeds," and "man-made confessions of faith." The other gentleman, whose letter I now give, is an amiable fellow-citizen, the Rev. and venerable Dr. Mitchell, one of the most talented men in the Secession church; and, with Mr. M'Gavin, a warm friend of Bell's.

"BRITISH LINEN COMPANY'S BANK,

"GLASGOW, 6th Oct. 1829.

"REV. AND DEAR SIR,

"I take the liberty of introducing to you my friend Mr. Edward Morris, of Glasgow,

K

who goes to Dublin on the patriotic mission of procuring subscriptions for Mr. Henry Bell, the first practical steam-navigator in Europe. It has been impossible to procure from government, so liberal in other matters, any thing like an adequate reward for so mighty a benefit conferred on the country. Hence an appeal to the people themselves has been made; and Mr. Morris will be able to tell you that it has not been made in vain, in Glasgow. "I remain,

"Dear Sir Harcourt,

"Very truly yours,

To Sir Harcourt Lees, }
Bart. Dublin.

"W. M'GAVIN."

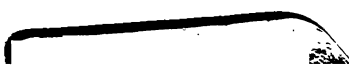
Sir Harcourt was friendly, and wrote a note per the bearer of the above letter, to his brother, Sir Edward Lees, of the Post Office, Dublin, who was a friend to Bell.

"NEWTON HILL, Glasgow, Nov. 27, 1828.

"MY DEAR SIR,

"THE bearer, Mr. Edward Morris, is the friend of Mr. Henry Bell of Helensburgh, who, you know, has never been suitably rewarded for the practical application of the

power of steam to the purposes of navigation, which Mr. Bell effected, and which is now achieving such wonders. Mr. Morris has taken up his cause, supported by several of the first gentlemen of this city, the Lord Provost and Mr. James Ewing at their head, and wishes to bring his claims before the public in the most effectual mode, perhaps to prefer these again to the attention of government. At Mr. Bell's suggestion I write to introduce Mr. Morris to you; but to recommend the object to you, I would feel to be unnecessary. You know the bearings of the question, and Mr. Bell and his friends limit his claims to the practical application of a discovery which had indeed been made, but not carried out to any practical line of usefulness. Your time, I am sensible, always fully occupied, must be at present deeply engrossed; but perhaps you will be able to devote a few minutes to the consideration of the subject, and feel that you can give Mr. Morris your countenance in his undertaking, as well as your advice respecting the best method of prosecuting it. I know nothing



more need be said. What you feel you can do: sympathy with Mr. Bell, and a sense of what is due to the obligations under which he has laid the public, will, I know, induce you to do. I hope you are all well, and with kind regards, I remain,

“My dear Friend,

“ Yours affectionately,

“JOHN MITCHELL, LL.D.”

To J. S. More, Esq., }
Advocate, Edinburgh. }

The subscription was not opened in a formal way in Edinburgh, but Mr. More sent his subscription to aid the Glasgow movement, and otherwise showed that his friend Dr. Mitchell spoke truly when he said, that his sympathy for Mr. Bell would induce him to do what he could.

The undernoted testimony is valuable, as it comes from gentlemen who well knew what they spoke about; whose learning, genius, and mechanical and scientific acquirements, need no encomiums of mine. The note was produced by the late Dr. Cleland, to neutralise some articles, which, from prejudiced pens,

had appeared in the public journals of 1825, attempting to sully Mr. Bell's laurels, and to call in question his claims:—

“GLASGOW, 2d April, 1825.

“We, the undersigned engineers in Glasgow, having been employed for some time past in making machines for steam-vessels on the Clyde, certify that the principles of the machinery and paddles used by Henry Bell, in his steam-boat, the Comet, in 1812, have undergone little or no alteration, notwithstanding several attempts of ingenious persons to improve them. Signed by Hugh and Robert Baird, John Neilson, David and Robert Napier, David M'Arthur, Claud Girdwood and Co., Murdoch and Cross, William M'Andrew, William Watson.”

Letters could be multiplied of similar import to the above, from some of the best and most ingenious men of the three kingdoms; but these will suffice to show that strong is the testimony, conclusive the arguments, and overwhelming to all opposition, are the evidences which were put forth to government, from time to time, on the high claims of him

whose name will live in history, long as its pages shall record the acts of Britain's noblest sons. I will not, however, omit to mention, in this place, the able and zealous services rendered to Mr. Bell by Mr. Archibald Prentice of the Manchester Times newspaper, before I went to that town, and afterwards, although the subscription there fell greatly short of expectation. The editors did their duty, and those of Glasgow gallantly led the way.

At the conclusion of the subscription in Glasgow, I wrote the following letter, at Mr. Bell's request, to the gentlemen who conduct the press of our city, thanking them for the friendly part they acted towards him, in aiding me:—

TO THE EDITORS OF GLASGOW NEWSPAPERS.

“HELENSBURGH, 13th February, 1829.

“GENTLEMEN,

“PROMPTED by a sense of justice, and influenced by Mr. Bell's request, I take up my pen to return you my grateful acknowledgements, for the powerful aid you have ren-

dered by your open columns, in the cause of Mr. Henry Bell, by the admission of sundry articles from my pen, and your own friendly pleadings for him who had the honour of introducing that great marine system, the benefits of which we all participate, and the blessings of which are spreading with a rapidity, which outstrips in its swiftness the conceptions of the poet who sung thus, many years before the steamer moved upon the mighty waters,

‘Soon shall thy arm, unconquer’d steam, afar
Drag the slow barge, and drive the rapid car.’

“To the persevering and undaunted heroism of Mr. Bell, the following stanzas of the energetic Rowe may be applied with much propriety,

‘The wise and active conquer difficulties,
By daring to attempt them; sloth and folly
Shiver and shrink at sight of toil and danger,
And *make* the impossibility they *fear*.’

“The benefit of a well-directed public press has often been acknowledged and felt: free men rejoice in its protection, and tyrants

dread its power, and quail beneath its avenging scourge. Arts, sciences, and literature;—morality, education, virtue, and happiness, are widely promoted by a free British press. When it zealously takes up a just and patriotic cause, and perseveres in the advocacy, it kindles a general and generous feeling for that cause, and numbers combine, like a veteran army, to carry the object recommended.

“For the services which you, gentlemen of the Glasgow press, have rendered to Mr. Bell, in the free and fearless discussion of his claims, he returns his warm thanks. He also desires to express his obligations to his Honorary Committee in this subscription,—the Honourable, the Lord Provost Garden, James Ewing, Esq., Dr. Cleland, and William M’Gavin Esq., for the unceasing efforts they have put forth in his cause. When it was determined to take up the cause of Bell by a subscription, Mr. Ewing took up his classic pen, and wrote the general ‘Memorial,’ which embraced the facts on which the application was made, and which paper was inserted in the Glasgow journals. In 1826, when Bell’s

claims were before the government, backed by thirty-five petitions, Mr. Ewing was indefatigable and unremitting in his correspondence with his friends in London, to secure support at head-quarters; but nothing could move the men in authority. To James Cleland, Esq., Mr. Bell is grateful for the useful services which that gentleman rendered him, in mentioning him in the various statistical and other useful works,—the fruits of his industry. To the Lord Provost Garden, and William M'Gavin, Esq., he feels grateful for their kindness; and to other gentlemen of influence, he takes this opportunity of expressing his acknowledgements. Soliciting still your support to the completion, I remain, gentlemen, very respectfully, yours,

“EDWARD MORRIS.”

I may here introduce a letter of Mr. Bell's written to me upon thereceipt of the £200 from government. It will show the state of suffering—severe and long-continued, which this great benefactor of his country was enduring, when the small pittance, so utterly below

what he merited, was sent to Scotland, after long delay.

“BATHS, HELENSBURGH, 19th June, 1829.

“MY DEAR FRIEND,

“I write these few lines lying in my bed, unable to sit up. But the letter you sent me, with the remittance of £200 from the Treasury, a gift ordered by the late Mr. Canning, will relieve my mind a little, and enable me to get Mrs. Bell’s house finished, and to pay the tradesmen. I was afraid I should not have got this £200, little as it is. The wounds in my legs are rather easier during the last few days, owing to my keeping close to my bed. I will write to you in a day or two more fully. I am your old friend,

“HENRY BELL.”

To Mr. E. Morris, }
22, Downing St. London. }

Mr. Bell continued to apply his services to steam-apparatus in various ways, while the steam-boats on the Clyde, and on the other navigable rivers of England, Scotland, and Ireland, and in the channels and seas into

which these "rolling floods" discharge themselves, continued to encrease, and the prejudice against them daily gave way, like the dissolving snow, when the rains of heaven drop in copious showers.

"Bell lived to see the bosom of the Clyde dimmed far and wide, with innumerable copies of his own invention," observes Mr. Robert Chambers, a zealous friend of the Helensburgh engineer, in his *Biographical Dictionary of Eminent Scotsmen*, a work of great merit,—“he lived to know that steam-boats promised to give a new turn to the art of general warfare; he lived to behold numerous secluded parts of his own country subjected by means of these light wanderers of the deep, to the blessings of commerce and civilisation, which could not have otherwise reached them for centuries; yet he reaped for himself no advantage. While mankind, at large, were enjoying the blessings which he had pointed out to them, he approached the confines of old age with the prospect of hardly the average comforts which attend that stage of existence in the humbler ranks of life. Touched

by his condition, a number of benevolent individuals instituted for him a subscription in Glasgow; and it is creditable to the good people of that city, and other places, that a considerable sum was raised. The Trustees on the river Clyde raised his annuity from £50 to £100 per annum, for life; and the half of this sum is still continued to his widow. Mr. Bell died at Helensburgh, on the 14th Nov. 1830." (See Vol. I. p. 196.)

The above passage does credit to the head and heart of Mr. Chambers, who, with his excellent brother, has done so much to diffuse through Britain, and the world, the best "Information for the people,"—the wealth-producing millions, that ever perhaps was sent abroad by the industry, the philanthropy, and patriotism of the benefactors of man; and, I am glad to think, that while these two useful brothers have been so actively employed, their own fortunes in this world, and we hope in the coming one, have kept pace with the extent of their exertions. Their last work, "Cyclopedia of English Literature," is a noble undertaking, and its success is equal to

its merits. Prosperity to all their efforts like these to send abroad the rich gems of our country's intellect, from the dawning of its infant bud, to its mid-day splendour, and ripened glory!

Bell's steamers will convey Chambers' bales of publications, swift and safe, to every land. They will soon be re-published in the Chinese language,—and the Mandarins of the Yellow, and the Black, and the White rivers of that vast empire, will catch the generous flame which these publications emit. These works have mighty power! They are esteemed through Europe, Asia, Africa, and America; and the writer of "Bell's Life" has often employed his leisure hours, not only in perusing "Chambers' Journal," but in writing articles for the public and press, unfolding their utility, and endeavouring to aid their circulation amongst his countrymen, although he has not the pleasure of being personally known to either of the Messrs. Chambers. He honours them, amongst other things, because they always defended the claims—the great claims of his revered friend, now a

dweller on high, who gave us that first searover, which, despite of warring waves, of contending tides, and howling winds, made its way "like a glorious giant," visiting every shore, and returning back with safety to that isle, whose renown and greatness no words of mine can express; and whose moral and intellectual power over the nations of the world is a miracle of wonder, equal, though different in its nature, to any recordings of that blessed volume, which wise and good men love, but which infidels and atheists have vainly attempted, (and will always labour in vain here) to banish from the world—the Bible—the scriptures of the Old and New Testament, which, as Locke beautifully says, "have God for their Author, salvation for their end, and truth, without any mixture of error, for their matter!"

Mr. Chambers alludes to Mr. Bell's opinion, that steam-navigation would entirely change the mode of naval warfare. He is correct in this. About the year 1826 or 1827, Mr. Bell dictated to the author a letter to the late Mr. Canning, then prime minister of



the British empire. The purport of this epistle was to show to that great man, who wielded the might of Britannia, that the steam-ship could be brought into action against any fort or sea-port of the enemies of our nation, with terrible effect.

The blowing up of Acre, in the land of Palestine, under the heroic daring of the gallant Napier, and the wholesale destruction of the Chinese junks, and their supposed impregnable fortresses, bear weighty testimony to the truth of Mr. Bell's views; and had Mr. Canning been alive now, he would doubtless have confessed the same. I am sorry I have not a copy of this letter. Not that I love war, or any thing connected with the man-destroying trade; but, as the province of the historian, it is my duty to detail these facts and incidents as illustrating my subject.

At the time Mr. Bell wrote this letter to Mr. Canning, that minister was preparing the expedition for Lisbon, consisting of eight to ten thousand troops, and a fleet composed of those ships which had made many nations tremble, and manned with those "hearts of

oak," who, at Egypt, at Camperdown, and Trafalgar, "dealt blows on their foes," which France cannot forget. May the occasion never arrive to renew these bloody scenes!

Mr. Canning made evident allusion to this letter from the father of steam-navigation, when he delivered his celebrated speech on sending out the army and fleet to Portugal, to protect the infant constitutional liberties against Spain, if not of France, who looked with an "evil eye,"—Bourbon-like, on the rising glory of Iberia, and fain would have crushed the hard-earned freedom of our ancient faithful ally.

The following is the passage which occurs in the orator's powerful address delivered in the House of Commons, defending his measure, and explaining the object of it, on which occasion he was listened to with deep attention, and cheered from all sides of the House.

"As an English minister, all I have to say is, May God prosper the attempts made by Portugal to obtain constitutional liberty! I dread war, not from distrust of our powers, and our resources to meet it, but because I

am conscious of the tremendous power which the country now possesses of pushing any war in which she may be engaged to consequences, at the bare contemplation of which I shudder. I fear that the next war in Europe, if it should spread beyond the compass of Portugal and Spain, will be a war of the most awful nature, because it will be one of conflicting opinions.

“I say, Sir, the consciousness of this fact, the knowledge that there is in the hands of our country such a tremendous power,” meaning steam-ships, such as Napier and the Chinese commanders used, “induces me to feel as I do feel.

“But it is one thing to ‘have a giant’s strength,’ and another thing to ‘use it like a giant.’ The consciousness that we have this power, humanly speaking, keeps us safe. Our business is, not to seek out opportunities of displaying it, but to keep it so that it may be hereafter shown that we know its use, and to shrink from converting the umpire into the oppressor. Sir, the consequence of the letting loose those passions which are all

chained up, may be such as would lead to a scene of desolation, such as no one can for a moment think of without horror, and such as I would never be easy under, or quiet on my couch, if I were conscious of having before one hour precipitated."—(See *Life of Canning*, in *Constable's Miscellany*, or *General Registry of Politics and General Literature*, for the year 1827, pages 101, 102).

This splendid and somewhat prophetic speech of the only antagonist of Brougham, made France and Spain to change their policy.

Canning saved Portugal from the threatened attack, and Bell's steamers returned without putting forth "the thunder of their power." This was best for all parties; and it is to be hoped that despots in all lands will yield to the progress of truth, and introduce those progressive improvements which the advancement of knowledge calls for, and the power of a united and thinking people will force at their hands, or else cashier them from those posts of honour, and power, and place, and put better men into their thrones, who will "rule the people righteously."

Mr. Bell, for the last two years of his life, suffered much. The short letter which he wrote, on the receipt of the pittance which government granted him in June 1827, would prepare the reader for that event, which in fifteen months took place. He suffered greatly, as mentioned in this note, from the bruises which he had sustained at a former period, in his arduous struggles to introduce his darling scheme.

The following, I believe, was the last of his many projects, and it was matured on that bed from which he never recovered.

It was dated,

“HELENSBURGH, 23d Aug., 1830.

“TO THE GENTLEMEN, FREEHOLDERS, AND
MERCHANTS OF ARGYLESIRE.

“GENTLEMEN,

“I beg to submit to you, what I humbly conceive would be a great improvement in the means of communication in the county of Argyll; such an improvement, I believe, as would add greatly to the value of the western isles of that shire, and to the coun-

ties adjacent. As I have long been convinced that a canal, running across that neck of land between east and west Tarbert, would present an expeditious and safe means of communication for vessels passing from the Clyde to the western coast of Scotland, I took a careful survey of the ground two years ago, and found my scheme perfectly practicable.

“I have latterly consulted several persons conversant with the excavating of canals, and my estimate of the straight cut which I have planned out, and desire to submit to your inspection, is, if cut 50 feet wide at bottom, and 60 at top, and 3 feet deep,

Below low water, cost, ...£37,000

And if 6 feet below low water, 23,000

And if 9 feet, add,..... 30,000

Total expense, ...£90,000

Depth at high water mark of these several cuts, as follows: first, 15 feet; second, 18 feet; third, 21 feet; the former affording a passage for the generality of vessels trading to and from the river Clyde.

“This canal would form a very splendid

opening, almost unequalled, for natural grandeur and sublimity. There would be no impediment whatever to the navigation in this cut, it being made in a straight line, through solid rock, without locks or draw-bridges. It would certainly form one of the grandest openings in Europe; but its utility would be incomparably more important than its rural magnificence, and fascinating beauty, attractive as these would be.

“The first cost would be all that is required for many years to come. There are, indeed, two bridges required; but from the nature of the ground, they could be placed so high, as to allow vessels to pass under the arches in full sail. The span of these arches to be 70 feet, the breadth 25 feet, and built of stone, of which there is plenty at hand.

“The money query is, How is this great projected undertaking to be effected? I answer by a joint stock Company—of 100 shares each. The proprietors of those islands, who will be chiefly benefited will find it their interest not to discourage or lose sight of the scheme, though they should be

staggered at first, by the amount of the expense, to carry it into execution. A second query is, What interest are we to expect for the outlay of hard cash, and from what source, or sources, is it to arise? It will be from vessels passing to and from the western coast of Scotland, and the north of Ireland.

Merchant vessels too, from America, and the West Indies, may be expected to take advantage of this cut. In my opinion, the charge on these vessels would be as follows, and which would produce a considerable sum to the proprietors:—

	£	s.	d.
Small rowing boats, each	0	2	6
Half-decked fishing wherries,.....	0	5	0
Vessels from 10 to 50 tons, per. ton,.....	0	1	0
Do. 50—100. do.	0	0	9
Do. 100 upwards, do.	0	0	6

These charges, I presume, would amply repay the shareholders for their outlay; as, after the first year's opening there would be a dividend each year to a certainty, as no after expenses would be incurred but the col-

lector's fees. If these hints of mine for the benefit of the commerce of my country, and especially of the shire in whose prosperity you are more immediately concerned, should be approved of by you, and should issue in your taking the steps necessary for the completion of the scheme, I shall consider my exertions in the business well rewarded. I remain, Gentlemen, your most obedient servant,

(Signed) .

“ HENRY BELL.”

The above outline of an ingenious—probably, a rational and practicable scheme, proves to the reader the activity of that daring mind, which was soon to close its inventions in this world for ever. The plan was thus brought out in the midst of bodily affliction, which he had long endured, and which, as before stated, were brought upon him by his exertions for our common benefit, and for the good of all nations, and all coming ages, while the sun, moon, and stars hold their course in the heavens!

I might here state some things which in

connection with his own personal and pecuniary embarrassments, tended to distress his mind, while his body was fast sinking under growing infirmities. Individuals to whom he had formerly owed money, which it was impossible he could discharge, harshly came forward with old-standing accounts, thinking to *procure at once*, on the subscription which Glasgow and other places contributed to the joint benefit of himself and Mrs. Bell. In this unworthy object they were foiled by the firm and wise conduct of his true friends, Mr. James Ewing, Provost Garden, Dr. Cleland, Mr. M'Gavin, and other benevolent and influential gentlemen, who stood by him in all his difficulties, and for whose kindness he was grateful. This is a delicate subject, and I will not dwell upon it, for I have no desire, unnecessarily, to stir up old and unpleasing recollections, now he is gone, whose merits the world confesses, and all nations feel. In the subscription, Liverpool, Manchester, and London, came short of what was expected by Mr. Bell's friends; for the impression continued strong to the last, that government

would, as it ought to do, reward this benefactor of man. But no: "tell it not in Gath—publish it not in the streets of Ascalon"—all that could be wrung from that great quarter was the sum already stated—two hundred pounds—"for him who conquered wind and wave" through every land, and every age! It is true, in the great towns mentioned, several liberal-minded gentlemen acted generously, whose names are mentioned in former pages of these memoirs. The subscription was not opened in Edinburgh, as the author of this work took unwell soon after his return from London to Glasgow, in 1829; and Mr. Bell's health sinking rapidly, the idea of trying the Scottish metropolis was given up—*perhaps unwisely*. Several individuals sent in their subscriptions from that city to the Glasgow fund; and it would be ungrateful in me, as the friend of Mr. Bell, not to mention here the zealous exertions of the Rev. Peter Chalmers, of Dunfermline, who remitted to his friend, Dr. Cleland, for Mr. Bell, upwards of thirty pounds sterling, which he obtained in that town and neigh-

bourhood, by his own efforts, in this good cause—the Rev. gentleman heading the list with a liberal subscription. We are now arrived at that part of my narrative, which will unfold to the reader the termination of all earthly joys and griefs—of all schemes, and struggles for mankind, of him whose labours Glasgow will gratefully remember, long as Clyde shall roll to the deep.

I was myself on a sick-bed when I received a letter that my venerable friend was getting rapidly worse. I could not go then to see him, owing to a severe inflammation in my eyes. I copy the following from the Glasgow Free Press, the editor of which, (Mr. Bennet,) and Mr. Robert Lamont, and Mr. Fowbister, had always zealously aided his cause. It is dated 17th November, 1830.

“Death of Mr. Henry Bell.—We have the mournful duty to announce to the public, the death of the ingenious Henry Bell, whose history is so well known in this city, and throughout Scotland, as the practical introducer of that great system of navigation, which has produced such mighty results in

the maritime and commercial affairs of these nations. He departed this life on Sunday, 14th November, 1830, with his ideas clear to the last, and resigned to that Almighty Being who created him, and gave him those abilities which he had nobly put forth for his country's good.

“ His trust for eternal life was in that great Redeemer who shed his blood for the redemption of all mankind, and through whose Divine merits he trusted for salvation in a better world on high. He was in his sixty-fourth year, having been born in April, 1767, at the village of Torphichen, near Linlithgow. We have no additional particulars just now to give. Glasgow did its duty towards Mr. Bell, and had other towns felt a similar interest, the subscription raised there for him in 1828—9, would have met the expectations of his friends and admirers; and these were many and respectable. We trust the River-Clyde Trustees will continue their bounty towards Bell, by a similar act towards his excellent widow—who well deserves their sympathy and support, and who managed so

well his affairs, when he was utterly disabled from looking after them himself.”—(Free Press, of November, 1830.)

The funeral of Mr. Bell took place on the 19th of November (Friday), when a large assembly of all ranks attended his honoured remains to the Churchyard of Row parish, two miles from Helensburgh—a lovely spot, washed by the ever-murmuring waves of the Firth of Clyde—that river which bore on its billowed breast the first European steamer, and fitly does it roll past the resting-place of him who subdued its pride, and rode its tides, unassisted by winds or canvas. The day on which Mr. Bell was buried was very wet and stormy, which prevented many gentlemen from attending, who otherwise would have been present, and wished to be there, from the purport of a number of letters which Mrs. Bell received, regretting their inability. The Company began to assemble at the Baths’ Hotel, where he died, about eleven o’clock, and at one o’clock the corpse was lifted, and the hearse slowly moved, accompanied by a number of gentlemen’s coaches, with the own-

ers and other near relatives and friends of the deceased. They reached the place of burial, (Row church) about two o'clock, the shops in the village being all closed, and the vessels at anchor with colours mast high. The steam-boats, more particularly, manifested these little tokens of esteem in a more emphatic way; and Captain Douglass, of the Waverley Steamer (an old and esteemed captain of Bell's), fired three minute guns, as the procession moved past his boat, bearing the earthly remains of that kind master whom he had served in the first trip of the Comet.*

There were about 140 persons present at the funeral, amongst whom were the Right honourable Lord John Campbell (now Duke of Argyll), James Smith, Esq. of Jordan Hill; Claud Neilson, Esq.; Archibald M^c-Lauchlan, Esq.; Adam Monteith, Esq. of Rock Bank; Major Brown; John Craig, Esq.; Baillie Hood; Mr. A. Brown; Mr. Edward Morris; Dr. James Stevenson; Rev.

* On the coffin, which was neat and plain, were inscribed these words,—“Henry Bell, Engineer. Aged 63.”

Mr. Bruce of Cardross, who was very attentive to Mr. Bell in his illness, Rev. Mr. Campbell, of Row; Rev. Mr. Anderson, of Helensburgh, a warm friend, Rev. Mr. Sommerville, of Dumbarton, and many others, whom we have not space to particularise. Letters of apology were sent to Mrs. Bell from Sir James Colquhoun, Baronet, of Luss; Rev. Dr. Mitchell, and Dr. Cleland, and William M'Gavin, Esq., banker, Glasgow, and from many others, who were unable to attend through the inclemency of the weather, prior engagements, or bad health. In these letters, a kindly sympathy and esteem is expressed towards Mrs. Bell, and an honourable and just testimony borne towards her departed husband, who had left a name not to be forgotten in Helensburgh—through Britain and the world. The vessels on the Clyde, up and down, of all crafts, showed tokens of esteem towards him, whose good-natured smile would no more enliven the cabins of his gallant steamers, nor kindle and enliven pleasant conversation, by his witty, innocent anecdotes, which came fresh from him, like the

stream that freely rolls and sparkles down its flinty channel.

My fellow countrymen! Citizens of noble Glasgow! I have thus set before you, a short sketch—it may be an unpolished one—of the birth, life, works, and death of Henry Bell of Helensburgh. I loved him from the first hour I spent in his company at his own house, in 1826; and I esteemed him till he quitted us for worlds beyond the reach of affliction, sorrow, and death. I indulge in no mawkish feeling, no sentimental reverie, when I say I hope to meet him in that land, whose beauty the “Saviour of all men”—Jesus Christ—has pointed out, and “brought to light” by His gospel of “glad tidings” to men. It is nothing to damp this belief that I reflect—and reflect with grief—there are men and creeds—Infidel and Atheistic—opposed to these animating views; creeds gloried in by the Volneys, the Voltaires, the Humes, the Paines, and the Owens, whose reckless systems—if such confused men could have systems—will perish from the world before the brightness of that Sun

whose beamings shall continue to encrease, till not a solitary vale, a barren mount, or a speck of land, shall be unillumed by his fires—or unfructified by the dews and the rains of a more refreshing nature, than those which fell on Hermon's hill, described by the sweetest bard that ever struck the lyre of glorious Palestine—the Shepherd-singer of Israel, “the man after God's own heart,” the Father of the wisest of mankind!

Bell! yes, thou art gone—but thy works remain. They have left for thee a richer name, a nobler title, than princes can give, or senators bestow! The Christian missionary, as he rides over the awful deep, from island to island, in the West Indies, scattering the riches of Divine truth, amongst our sable brethren, long oppressed, but now free, will think of the labours of that man whose genius “many waters could not quench!” The patriotic and philanthropic philosopher, as he roams over the vast rivers of Columbia, of Egypt, of India, of China, will think, too, of the individual whose dwelling-place was Helensburgh, and to whose untir-

ing genius, Britain owes those beauteous skimmers of the sea and conquerers of the river tides, which, next to the art of printing, will do more to civilise and Christianise mankind, (instrumentally) than any other invention of man since "God said, Let there be light, and there was light." To the princely merchants of our country—to the manufacturers,—to our matchless engineers—to our industrious and skilful mechanics—to our princes, and our peasants, I may say, Gratefully will you, gratefully ought you, to remember Henry Bell! What has he done for you? He has opened a path over the mighty waters. From our blissful isle we can now travel to every shore, without waiting for winds and tides to favour our journey. Up rivers, down rivers, over the channels, and over the seas, we go with the speed of the eagle, and with as much ease, as sitting on a silken sofa, by a warm fire-side! Our land will rise from her commercial difficulties. Good men, and true patriots, of all names and ranks, will, we hope, soon unite, and each yielding a little, save our nation from ruin,

and open up free-trade to all lands ! It is vain to fight against these principles. They are founded in nature ; they are the voice of reason ; they are the echo of philosophy ; they are taught by God in that Book which Newton loved, which Bacon revered, which Milton studied, and from which Johnson, Addison, and Cowper, drew their everlasting lessons ; and to which, Chatham, Burke, and Fox, owed the most striking passages in their undying pages !

Henry Bell was a determined foe to every monopoly ; and though his language was not very grammatical, his ideas were lively, and his views expressed in strong terms. I appeal to all those who knew him best for the verity of these remarks. He said repeatedly, that his steam-boats would “ break up all monopolies ” in every land, and establish free-trade between the nations of the earth, by linking them all in the bonds of friendly feeling. What a vast field of noble enterprise is opened to England, if she rightly conducts the peace, now happily signed with the Chinese people ! Dr. Haniel, the celebrated Russian traveler

and philosopher, whom I have the pleasure of knowing, said to me the other day, when expressing his approbation of my writing the "Life of Henry Bell," that, for our new connection with the vast Chinese Empire, we were, in a great measure, indebted to the successful application of steam-power to naval operation, and that the commercial intercourse by that means opened between Great Britain and China, would be of incalculable advantage to both countries for ages to come. This opinion of a talented stranger (who is among my subscribers), I value much, and believe it true.

I may not have given his exact words, but his sentiments were just what I have written, and I hope our steam-boats, of all sizes, will henceforth be used, not to batter down Chinese forts, but equally for the purposes of commerce and civilisation. I trust that in making this statement, I have not trespassed on the laws of propriety or courteous feeling due to a very worthy gentleman, in thus stating part of a conversation which passed between us, and which so fully confirmed my

own views as to the terrible power of that marine system now under consideration. Dr. d'Hamel is in the service of the emperor of Russia, (with whom England has lately signed a friendly commercial treaty,) and it is well for sovereigns, and for nations, when they employ such persons as this gifted gentleman, to devote themselves zealously, as he does, to the gathering of useful information, with unremitting assiduity, to benefit his native country, Russia, an empire whose far-spread dominion is unfolding rapidly the glories of civilisation. May these blessed fruits abound more and more; and England and Russia aid each other in all the useful and ennobling pursuits of honourable rivalry!

I shall now take a glance at the wonderful progress of steam navigation through the world, since the death of its introducer. The following stanzas appeared in the Greenock Advertiser, about the time of Mr. Bell's death, or a little before it:—



TO THE GENIUS OF HELENSBURGH.

Who conquer'd thee, Clyde! 'mid the winter's wild
 roar,
And o'er thy dark bosom, 'gainst tides, did explore
 Lone spots, which thy billows do lave?
Who brav'd thy rude torrents, rode hurricane's blast,
And ocean subdu'd, when with tempests o'ercast?
 It was *Bell* with his bark on thy wave.

The *Comet* he plann'd;—yes, the scheme was his own!
It will spread through the world, it will send his
 renown
 O'er rivers and oceans afar.
He fought the hard battle, where many were slain,
And triumph'd o'er Neptune, through all his domain;
 What *millions* his bounties *now* share!

O Greenock! canst thou to *his* merits be blind,
Whose memory shall flourish in wave and in wind,
 While stars show their lustre on high?
Thou knewest him well; his bland face unto thee
Familiar was; his abode thou canst see
 In yon village that smileth hard by.

See how his proud rovers in majesty ride,
O'er ocean's dark caverns, like giants in pride,
 To Glasgow's fam'd city they go,
Through storm, or when not a ripple is seen,
To ruffle the waters in autumn serene,
 When winds sleep in caves sound below.

Fair Helensburgh! poets shall strike their bold lyre,
And strike to his honour, when he shall retire

To climes where no sorrow can come—
Bell ! Yes, that sweet village where long thou didst
dwell,
When fled is thy spirit, thy merit shall tell—
On thy grave shall the wild flowers bloom !
BRITANNICUS.

The inventive powers of Bell were exercised on many objects, though the steam-boat was his master-piece. I believe I am correct when I say it was he who planned the dredging or deepening machine on the river Clyde, which, with its steam-engine and buckets, has done so much to improve glorious Clyde, and redeemed so many acres of land which a few years ago were lying under water, showing occasionally only the bulrush and other weeds, that are of no benefit to man.

Our active river-trustees keep this Henry Bell machine in regular motion; and "father Clyde" owes much of his utility to this simple invention.

Mr. Bell, when a contractor, built the first large flour-mill at Partick, since which several others have been added. Melville

Court was also built by him; and it is very generally allowed, that to his prolific genius we owe the first conception of that beautiful improvement in calico-printing called the discharging-machine. . John Bartholomew, Esq., and his brother Mr. Robert, mentioned to me that Mr. Baines of Leeds, in his valuable history of the cotton manufactures, states the same opinion. I have not seen that work myself; but in a conversation I once had with Mr. H. Bell, he mentioned to me this fact.

It is much to be lamented that some literary friend did not keep a regular journal of all the inventions and suggestions of this genius of nature. His papers, at his death, were in a confused state; and Mrs. Bell, not aware of the value of them, destroyed a great number, of which the writer of these memoirs would have been happy to have had an inspection.

Dr. d'Hamel, the Russian gentleman formerly mentioned, said he himself wrote, in the beginning of steam-navigation on the Clyde, to Mr. Bell, but found no correspon-

dence remaining when lately he called on Mrs. Henry Bell at Helensburgh, intending to write something on the merits of her departed husband, and his steam-boat enterprise.

I hope soon to see that article in print, from the pen of such a distinguished foreigner, whose testimony cannot be tinged with partisan feeling, or a personal leaning towards one who is now alike indifferent to the praises or to the censures of mortals.

Dr. d'Hamel knows the worth of Bell; and the Russian empire, like our own, will reap mighty advantages on its vast rivers, and far-flowing channels, from those beauteous and magnificent vessels which laugh at the tempest, and pass through the whelming wave with as much ease, amidst the roaring of the winds in stormy March, as they do when lovely June has not a breath of air that can ripple the glassy deep.

In 1839, there were nearly ninety steam-vessels belonging to the river Clyde, some of which exceed 300 horse power, and upwards of 400 tons burden. These splendid vessels

come up to Glasgow with ease, when the tide is at full; and if too late at Greenock for this, they have only to wait the next flowing of the mighty waters, to come up to our city, loading and unloading at the Broomielaw valuable cargoes from England and Ireland, and bringing along with them the merchant-owners of perhaps goods and ship! The Broomielaw is, in fact, the proper sea-port of Glasgow; and the improvements going on there will render it more so in future, notwithstanding the petty snarling against the trustees, from certain selfish quarters.

The many improvements on this noble river, and especially the new quay above the beautiful Glasgow bridge, will impart new life and interest to that busy spot, and no doubt amply repay for the toil and expense of the undertaking.

The great importance of the Clyde navigation may be seen from the fact, that in 1815 the revenue of that river was only £5900; and in 1842, twenty-seven years afterwards, it rose to £42,401, nearly one half of which immense sum is derived from the passen-

ger steam-boats; and doubtless the general shipping of this river and frith has been greatly promoted by the employment of the steam-tug-boats, which bring up and down our princely merchant ships, between Greenock and Glasgow, with such *clock-like* regularity!

These facts speak strongly for the merits of him whose genius was so long and so zealously exerted to bring to maturity that system whose benefits Glasgow is proud to confess, and the world at large will never forget.

I shall conclude with the introduction of some miscellaneous articles, and interesting letters, which I think will show the rising value of the "new power" of battling through rivers and seas, when winds and waves display their opposing force.

The following letter, which was kindly sent me by William Thomson, Esq., civil engineer, Lochgilphead, is deeply interesting, as showing the fate of the glorious little Comet steamer, which was wrecked in the Highlands, after many a gallant trip and splendid victory against the winds and waves in her briny course, in which Mr. Bell often attended her:—

"CRINAN CANAL OFFICE, ARDRISHAIG,

"LOCHGILPHEAD, March, 1843.

"DEAR SIR,

"I HAVE a request on your behalf from my son, Mr. James Thomson, civil engineer, Glasgow, arising from his knowledge of my acquaintance with the late Mr. Henry Bell, to furnish you with any information or anecdote that may be useful for your 'Life' of that useful individual, which you are about to publish; the advertisement for which work I have seen. I am not sure, although an early acquaintance of Mr. Bell while projecting his Comet, and carrying into effect his steam-boat scheme on the Clyde, that I can furnish any thing that will add particular interest regarding him in your publication. About the time he was fitting up the 'Comet,' I was in frequent communication with him in regard to minor arrangements and details of the machinery for her; and I had these transactions vividly brought anew before me by a transient process of recollection on recognising as an old acquaintance, part of the

frame of his original 'Comet' steam-engine, exhibited at the British Association, which met in Glasgow in 1841, as recovered from the wreck of that vessel, which occurred in the Dorus More, on the point of Craignish, in 1820. Circumstances separated us to some distance for several years, beyond mere transient notices.

It was in 1818 our acquaintance was again renewed; and a correspondence took place regarding the extension of steam-communication through the Crinan canal, to the west Highlands, a favourite scheme of Mr. Bell's. Steam-intercourse had by that time been established between Glasgow and Inverary; and seeing that it would be beneficial to the Highlands, and remunerating to whoever took up the trade, I entered into correspondence with Mr. Bell on this subject, which he the readier entered into, that he and his 'Comet' were driven from the Clyde by superior vessels under companies and capitalists, with which he could not compete.

"Mr. Bell made his appearance with his Comet under the best repair she was capable

of, and with such improvements as the engine and machinery would admit of, in August, 1819, and proceeded to Fort William, between which and Glasgow he maintained a communication till late in that year. He obtained subscriptions for a joint-stock company to establish his line of intercourse,—a condition of which was, that the *Comet* should be received as one of the boats, himself holding a certain amount of shares. As I had anticipated, this scheme proved successful; and Mr. Bell's prospects brightened. Others, however, soon entered the field; when the '*Comet*' and its builder had again to struggle with new difficulties.

“In October 1820, when on her passage from Fort William to Glasgow, in which Mr. Bell had accompanied her to make arrangements with subscribers about a new and more powerful boat for the ensuing season, the weather being then very unfavourable for a boat of such limited power as the old '*Comet*' was; yet making a favourable passage till entering the *Dorus More*, and rounding the point head of *Craignish*, she was met by a strong easterly wind, from which she had

been previously comparatively sheltered, by which, and a rapid current which prevails there, her head was forced about towards the land, and her bow run ashore between the rocks, which fortunately admitted Mr. Bell and his companions to get safe ashore. The boat soon after parting in two, the after part floating towards the gulph of Corryvreckain, and the bow resting where the accident occurred, from which part of the machinery was afterwards recovered.

“A new boat was at this time determined on, towards which the gentlemen of Lochaber gave their warm support, by taking shares, not less from the advantage seen to accrue to themselves and to the country, than from the great merit and encouragement due to Mr. Bell.

“I had the pleasure of obtaining some subscribers for him; among others Neil Malcolm, Esq., of Poltalloch, paid a £50 share, and I rather think his lady did the same, liberally leaving the money in Mr. Bell’s hands. The new Comet was built in 1821, and after plying the ‘river and seas,’ she on a voyage

from Inverness to Glasgow came into collision with the Ayr steamer off Gourock, 20th Oct. 1825, when the vessel went down; and upwards of seventy people were lost, many of whom I had a few hours before parted with. And if considered interesting to trace this, I believe, last of Mr. Bell's steam-boat connections, to its ultimate result, I may state, that this again unfortunate 'Comet,' was raised and brought ashore at Gourock in July 1826, by Mr. Brown from Aberdeen, which operation I attended on the part of the Company, and thereby witnessed the recovery of a parcel of notes, amounting to about £1000, known to have been in possession of Mr. Rollo, W. S., Edinburgh, who perished in this second 'Comet;' and also the accoutrements of Captain Sutherland, and the silver tea-pot of his newly-affianced wife, in good preservation. The Captain had been married at Inverness the week previous, and he and his lady were both passengers, and perished in this awful calamity,—which, it has been said, a penny candle in the bow of each steamer might have saved.

"Giving the above as it now occurs to me, I shall be glad if you find in it what may be of any interest to set before your readers in your proposed Life of a man of a restless ingenious mind, ever-plodding and scheming to reach an eminence in and by original inventions alone, which his very scheming prevented by driving him on to some new path, before completing what he had previously begun.

"I am, Dear Sir,

"Yours truly,

"WILLIAM THOMSON,
"Civil Engineer."

To Mr. E. Morris, }
Glasgow.

The concluding remarks of Mr. Thomson on the restless volatile genius of Mr. Bell, and of his flying from one daring scheme to another, are just. It was the mercurial nature of this celebrated man's disposition. It was his curious propensity to try experiment after experiment, to drive at a new scheme after the previous one was but half completed, that perplexed and involved him in great difficulties; but amidst all his schemings, the steam-boat

was ever before his mind's eye; and as observed in former pages of this work, after all our British engineers, and James Watt at their head, had nearly abandoned the hope of conquering the ocean by fire-driven, steam-propelled vessels, Henry Bell never faltered,—no, not for a moment; and amidst the neglect of the government, who could scatter millions on bloody battle-fields and unjust wars, but could not *spare a guinea* for Bell,—amidst all these discouragements, sufficient to tame the lion in the wilderness, the engineer of Helensburgh continued to battle on for his country, and made the Broomielaw resound with his praise by the shout of thousands, when he put the new fiery power to that glorious bark which cut its brilliant way through the waves of Clyde, as did that more exalted meteor, the comet, which at that time was careering through the heavens, and unfolding the glory and grandeur of the “Holy One who inhabiteth Eternity;” yes, my readers, the comet that was then reflecting its glory through the starry vault, seemed as it were to aid Henry Bell in his dauntless exertions; and now he is

gone, I am at liberty to say, that you, and I, and all mankind, are deeply his debtors: and coming ages will blush for the neglect of him in high quarters, while so many have been rewarded for services which, to say the least, would be best forgotten.

There is not a just-thinking man in the nation who does not now see how unjust was the conduct of our rulers towards Henry Bell. Let them read Mr. Canning's splendid eulogy on the steam-boat, and say what was the fault of those who neglected the man who was the leader in the glorious race which these mighty ocean-conquerers are now running to every nation under heaven? Glasgow stands proudly conspicuous in its friendship to Bell; but all other towns, as well as Glasgow, have been benefited by his great labours, however little they did to supply the lack of government towards our common benefactor.

I intended to have given a description of a number of the larger steam-vessels which now navigate our rivers, channels, and seas, and which cross the Atlantic, and wing their fiery course to

Nile's wild stream, where Pharaoh stood,
While his kind daughter from the flood
Took Moses when a child;

but I can only sketch a few, as my limits are nearly exhausted.

The following letter which I received from one of the best friends of Henry Bell, and one of the most ingenious and extensive engineers in England, will be useful here, as unfolding the progress of this "giant power," and how our country's glory, through it, is spreading among the nations, and among those lands which are renowned in the classic page of Greece and Rome, and rendered deeply interesting to Christians, from being the spots where God's mighty hand was seen, and his awful judgements, as well as his glorious mercies, displayed in days of old, as recorded in those Scriptures which are the charter of our salvation.—Christian reader! think on these facts, and adore Divine Providence.

"LIVERPOOL, March 10th, 1843.

"DEAR SIR,

"I HAVE many apologies to make you, for

not answering earlier your very acceptable letter of 7th January, which through a multitude of engagements has escaped my attention. You put me in mind of old times, and cause many interesting reflections. The price of your work is extremely moderate, and you may send me half a dozen copies; and I hope my application will be in time to enroll my name amongst your subscribers. If you visit here again you will, of course, call and see me. If you were to come now, I could show you a pair of marine engines, with cylinders of eighty-inch diameter, and eight-feet stroke, for a vessel entitled the *Bentick* of London, 2,000 tons measurement, for the Peninsular and Oriental Company of London, which is to ply in India between Calcutta and Suez, on the Red sea (the scene of Bible wonders of old), and is the second of the same power and tonnage I have made,—the first being for the Hindostan, now plying upon the same station. I have besides a pair in hand of 400 horse-power for our government, and a third pair of 350 horse-power for an iron vessel built

here. But I must conclude, or the post will be away.

“Remaining, Dear Sir,

“Yours sincerely,

“WILLIAM FAWCETT, *Engineer*,

“(of Prestons and Fawcett.)”

To Mr. E. Morris, }
Glasgow. }

The steam-ship lately built for our patriotic Queen and her amiable husband, is a truly magnificent vessel. Its size, shape, strength of timber, commodious cabins, exquisite paintings, and power and splendour of engines, are at once proof of the matchless skill of Britain, and an evidence of the mechanic greatness of our country.

I hope our Queen will yet think of Bell; and as she was so well pleased with her trip back from Scotland, in the Trident steamer, she will yet ask Sir Robert Peel, or Lord John Russel, what was done by the government for the man who brought these glorious vessels to ply the ocean waves. When she learns that nothing was done, I think she will say, “Then, Peel and Russel, you must do some-

thing for his widow, Mrs. Henry Bell, who lives to adorn the name of him who built the Comet." If Victoria could spend five minutes on this subject, her own noble mind would dictate what I have put into her mouth.

The steam-ship Great Britain, lately launched at Bristol, is a crowning triumph to these sea-conquerers,—nearly 4,000 tons burden, and 1,000 horse power!

Magnificent Rover! thy front to the blast
Looks proudly wherever thy anchor is cast;
And over the billows, thy battle with breeze
Is glorious. Bell's merits thou show'st on the seas!

Having completed what I contemplated, namely, a rapid outline of the Life of Mr. Bell, with a condensed view of that system which will live and bear his name to posterity, I shall now speedily conclude this work, by giving the reader an abridged statement of the number of vessels on three celebrated rivers,—the Clyde, the Thames, and the classic Rhine, which reflect the glories of their respective nations.



STEAMERS SAILING FROM THE PORT OF GLASGOW.

*Furnished by Messrs. Thomson and Macconnel,
Jamaica Street.*

	Vessels.	Tons.	Horse Power.
To Liverpool, ...	6 .	2581 .	1970
To Dublin and Cork, ...	4 .	823 .	850
To Londonderry and Sligo, . .	4 .	733 .	780
To Campbelton, ...	3 .	433 .	460
To Stranraer, ...	3 .	364 .	260
To Islay, Oban, and Skye, . .	3 .	330 .	300
To Oban, Fort William, } and Inverness, }	5 .	225 .	230
To Sundry places, from Glasgow, to Green- ock, Helensburgh, Rothesay and all the other beautiful bath- ing places on the shores of Clyde. }	47 .	3198 .	2562
	75	8687	7412*

The Liverpool steamers are not surpassed by any vessels in the world for speed, beauty, and splendour, and for safety and good man-

* In page 44 I gave a table of the fares charged to different parts on the Clyde, &c. in the first steamer the *Comet*. I may here mention by way of comparison, that the fares to Greenock are 1s. and 6d.—to Helensburgh, 1s. and 6d.—to Rothesay, 1s. and 6d.—to Oban, 10s. and 4s.—to Fort-William, 15s. and 6s.

agement, with accommodation for passengers. The very few accidents that have happened to these noble "palaces on the deep," as well as those to Dublin and Belfast, from their commencement, are their best eulogium.

STEAMERS FROM THE RIVER THAMES,
LONDON.

*Furnished by J. W. Sparway, Esq., 6, Wanford Court,
publisher of the "British and Foreign Steam-naviga-
tion Time Table."*

	Vessels.	Tons.	Horse Power.
From London to Hamburg,	6	2455	1365
Do. do. to Havre,	2	440	280
Do. do. to Ostend,	2	345	260
Do. do. to Calais,	3	460	360
Do. do. to Boulogne,	5	845	600
Do. do. to Rotterdam,	4	902	585
Do. do. to Antwerp,	4	1174	760
Do. do. to Hull,	6	1167	780
Do. do. to Greenwich, and Woolwich, some as low as three horse power, to thirty or thirty-five,	26	550	390
Do. do. to Leith, Dun- dee, Aberdeen, Newcastle,	15	3930	2915
Estimated steamers for dis- tant voyages,	12	3600	3000
	85	15868	11295

In 1842, there were eighty-three steam-vessels on the magnificent river Rhine, and 750,000 passengers were conveyed up and down that splendid classic stream, displaying those charms of nature which German poets and novelists have so often dwelt upon, in those beautiful and ennobling compositions, which may well be compared with our Byrons, Scotts, Spencers, and Burns. A friend lately returned from a tour on the Rhine, says these steam-boats are well conducted, and beautifully fitted up.

In the year 1836, there were only fifteen steam-vessels on this river, and only 50,000 passengers went in them that year. Six years afterwards they had multiplied to the amazing extent already stated, proving how the ingenious German nations can estimate the value of this sublime mechanical British invention, which tends so much to improve their noble country, and to unite it still closer with Britain, to whom those nations are so strongly attached; and between whom and us so many bonds of friendship and mutual interests subsist, by the intermarriage of our

Royal family; and last, not least, by the union of our present justly beloved, and popular *Victoria*, with *Albert* the man of her affections, one of the best men that ever crossed into our great country, and whose accomplishments as a scholar and gentleman, and, I hope, Protestant Christian, have won the approbation of Britons of all ranks. Their journey to France and Belgium in the beautiful steamer mentioned in another page, has stamped the image of a happy domestic pair in the minds of those enlightened and free nations.

The cabins of the Rhine steamers are most tastefully finished; and upwards of sixty persons can dine in any of them comfortably, and where dinners of the best of every thing that man can desire, or industry supply, are served up daily; and every attention paid to the passengers, to render the voyage pleasant as instructive. In a word, according to the style of the country, equal to any thing that can be produced in our best British steamers, which ride on our rivers or channels, and wing their way over seas to our boundless possessions abroad.

Were Mr. Bell now alive, and to take a trip on the Rhine, what a hearty welcome would he receive from the grateful Germans, who, from his "Comet," have thus derived these splendid vessels, which convey them so rapidly, pleasantly, and safely, amidst the sublimest scenery of their fatherland, and open up the commercial relations of their country, in all their expansive and enriching capacities! I almost think the German nations would feel inclined to do something towards rewarding this common benefactor of mankind; and so might Russia, to whose government Henry Bell sent a model, after his own nation seemed so indifferent to his scheme, and so sceptical as to its utility.

Mr. Bell uttered the following words in 1812, when the Comet started: "Wherever there is a river of four feet depth of water through the world, there will speedily be a steam-boat. They will go over the seas to Egypt, to India, to China, to America, Canada, Australia, everywhere, and they will never be forgotten among the nations."

On the above almost prophetic saying, I

composed the following stanzas, which I inscribe with all respect to my worthy friend, Mrs. Henry Bell, the esteemed widow of the man whose "Life," I shall now bring to a close. The poem is meant to describe, briefly, the feelings which the first voyage of the Comet gave birth to, when she was witnessed by the thousands who lined the shores of the Clyde, when Bell kindled his fire, and put the steam-power on those paddles, which demonstrated to astonished Glasgow that hot-water was henceforth to do that on the river and sea, which wind, and oar, and canvas were till then supposed the only agents sufficient to drive the vessel through the watery channel.

These rhymes, my honour'd friend, to you
Are penn'd, his merits to unfold,
Whose patriot worth and genius true,
Shall live in song, while Clutha bold
Rolls to the dark and raging deep,
And winds the ocean's bosom sweep!

I saw the bark when first was tried
Its giant-strength on Clyde's rude breast—
Of Scotia's rivers all, the pride,
In poet's brightest page confess'd ;

The Comet cut its brilliant path
Through waters, in their *winter* wrath!

A mighty host assembl'd there,
From city, village, hamlet, glen,
From hill and dale—the brave, the fair,
Bright maidens, matrons, gallant men—
Came to behold that *scheme* sublime,
Whose fruits *now* reach to every clime.

Bell stood his post, nor dread had he,
He brav'd the tempest, *wildly rude*,
While thousands *fear'd*, yet *hop'd* to see
His triumph on the briny flood,—
His men were firm,—his master-mind
Led them to conquer wave and wind.

Ye maids and matrons! now ye may
Cast all your fears to howling winds;
For Bell is safe, on Clyde's rough spray,
He rides secure—old Neptune binds
As with a chain, his daring plan,
Succeeds for Britain, *and for man!*

Not Homer's muse, nor Virgil's pen,
Nor mighty Shakspeare's lofty mind,
Nor godlike Milton's boldest strain
Could e'er unfold, and show mankind
Such wonders, on the ocean seen,
Where thy barks, fam'd Bell, have been.

Thanks to thee, Bell! but deeper yet,
Be thanks to Him who rules on high;
Whose glory in the heavens is set—
In sun, and moon, and stars, and sky,
Which loud proclaim His power divine,
As in their splendid course they shine.

The fire of genius came from heaven,
From Him who David's harp inspir'd,—
In love to man, in kindness given,
To raise our world,—Bell's mind was fir'd
With ardent light, mankind to bless;
And patriots will this truth confess.

The Comet moves,—Dumbarton's rock
Displays its front amid the storm—
She rides, nor heeds the tempest's shock,
A fairy thing, a beauteous form;
She triumphs on that trying day,
While shouts of joy burst on her way.

Port-Glasgow, Greenock, now behold,
The bark which battl'd wind and wave;
And Helensburgh, whose flags so bold
Were rais'd on high, to Bell the brave;
And his fam'd Comet, which had won
Renown afar, from sun to sun.



Sweet Helensburgh, ay, there he liv'd,
Who now sleeps calmly in that grave,*
Wash'd by those billows he depriv'd
Of power to stop the bark, he gave
To link our isle with every shore,
"Till suns shall set to rise no more."

Bell! yes, thy barks to India's strand,
Through China's rivers, seas, now ride,
Through Nile's dread torrent they command
Deep awe, and show Britannia's pride;
And o'er Columbia's tides they roam,
Where Indian finds his grandest home.

Thou saidst, they would cross soon the wild
Of waters into every land,
Where sun hath shone, or stars have smil'd,
And bear the torch of freedom bland;
And bear the Christian saving light,
And those who wield God's weapons bright.

Ye rulers of Britannia's isle!
How meanly treated ye my friend!
Will not the thought on you recoil,
Now he is gone—with dust to blend?
Two hundred pounds were all ye gave,
To him who conquer'd wind and wave!

* Row church-yard.

The bards through ages yet to come,
Will strike their cords in tones of fire—
In songs which will the world illumine,
Delight the matron, son, and sire;
And Bell! they will *remember thee*,
In strains of sweetest minstrelsy.

Glasgow! thou didst not Bell forget,
Thy sons and daughters knew his worth,—
Ewing, and Garden, Campbell, set
Their seal to his—they knew his birth;
His zeal, his labours—Telford too,
And Brunel, Fawcett, stood most true.

Gladstone and Smith, M'Gavin, Hume,
Finlay and Alston, Downie, stood
Firm by the man whose name will bloom
In beauty far—"o'er field and flood;"
Long as old Clyde those boats shall bear,
Whose benefits a world will share.

Farewell, my Friend! I knew thee well,—
Thy *kindly heart did beat for all!*
Oft in my breast a generous swell
Arose for thee; the tear did fall
At times, when o'er thy labours vast,
My mind's-eye was in sorrow cast.

“Sorrow!” yes; why? because thy land,
All, *but fair Glasgow*, did not feel
Thy worth—nor lend a generous hand
To aid thy struggles. This appeal,
In humble rhyme for thee I make,
To Britain’s rulers for thy sake!

And thou, his wife! these rhymes to thee
Are finish’d now, my honour’d friend,—
Live long, and happy—happy be!
May gospel-truth its sunbeams lend
To cheer thee through life’s rolling years,
Till God shall wipe away thy tears!

E. MORRIS.

88, Cambridge Street, }
Glasgow, 1843. }



LIST OF SUBSCRIBERS' NAMES.

HIS GRACE the DUKE of ARGYLL, six copies.
The HON. SIR JAMES CAMPBELL, Lord Provost of Glasgow, two copies.

A

Aikman, John, Royal Bank.
Alston, John, Rosemount.
Angus, Dr. William, 108, North Douglas St.
Anderson, Rev. William, Relief Minister, Tradeston.
Anderson, John,
Anderson, David, 30, South Hanover St.
Anderson, George, 12, Glebe St.
Anderson, J., Sen., Port-Glasgow.
Anderson, Daniel, Port-Dundas.
Aitken, Peter, 96, Argyle St.
Mrs. Aitcheson, 42, Argyle St.
Aitcheson, William, Writer, 37, Glassford St.
Alexander, Major, of Boydston, near Ardrossan, Ayrshire.
Alexander, J., Temperance Office, Queen St.
Allan, Thomas, Iron Foundry, Kelvin Dock.
Allan, A. 72, Candleriggs St.
Allen, Capt. James, Port-Dundas.
Arbuckle, Andrew, Port-Dundas.
Arbuckle, John, 41, Miller St.
Armour, Rob., Violet Grove, North Woodside Road.

B

Bailes, Matthew, Canal Office, Port-Dundas.
Bain, George, Port-Dundas.
Bain, William, Port-Dundas.
Bain, John, of Musspratt and Bain, 16, Back George St., Manchester.
Bayne, Thomas, 33, Ingram St.
Baird, Hugh, Sen., Canal brewery.
Baird, Andrew, 133, Renfield St.
Balbirnie, G., 26, Stockwell St.
Balbirnie, W., 164, Sauchiehall St.
Ballingvale, Miss, 86 Union St.
Barr, David, James Finlay & Co., Buchanan St.
Bartholomew, Robert, Provost of Calton.
Bartholomew, John, Ingram St.
Brancks, Thomas R., 47, King's St., Tradeston.
Barton, John, of Kelley & Co., 52, Virginia St.
Binnie, George, 77, South Portland St.
Buchanan, James, of James Finlay & Co., 172, Buchanan St.
Buchanan, John, Manager, Western Bank, three copies.

P

Burns, Rev. Dr., Paisley.
 Burns, Rev. William H., Kilsyth.
 Burns, Robert, 55, Hutcheson St.
 Burns, John, Port-Dundas.
 Burns, George, 243, Brandon Place, four copies.
 Brown, Hugh, 102, Virginia St. two copies.
 Brown, Archibald, Virginia St.
 Brown, John, Cotton Broker, 31, Argyle St.
 Brown, Edward, Kilmardinny.
 Brown, Alexander, Port-Dundas.
 Brown, William, of Killmardney.
 Brown, R. 209, Brandon Place.
 Brown, James, 258, High St.
 Brown, T. 88, Cambridge St.
 Brownlee, Archibald, P. Dundas.
 Burrel, George, do. do.
 Bryce, Peter, do. do.
 Bryce, J. D., of D. B. & Co., 112, Fyfe Place.
 Brodie, William, of W. B. & Co., 15 and 19, Cochran St.
 Broom, Alexander, 122 Hill St. Garnet Hill, two copies.
 Burnett, J., 193, Cowcaddens St.
 Bell, David, Councillor.
 Bell, Robert, Royal Bank.
 Brook, Henry, Clydesdale Bank.
 Blackwall, Samuel, care of Mr. Fred. Hooper Cairney, Bath St.
 Boyd, John, Kirkintilloch.
 Bowie, David, 18, Bath Street.
 Borrowman, Alexander, Duke St.
 Black, James, of J. & W. Campbell & Co.
 Bruce, Rev. William, Helensburgh.
 Benton, John, D. H. McDonald's, 9, Shuttle St.
 Bissland, D., 5, West Russel St.

C

Campbell, William, of Tilleche-
 wan, two copies.
 Campbell, Archibald, Glasgow
 and Ship Bank.

Campbell, D., Bookseller, Buchan-
 an St.
 Cameron, T., 289, St. Vincent St.
 Cameron, Lewis, Port-Dundas.
 Caughie, David, Normal Semin-
 ary.
 Caird, William, West Russel St.
 Cairney, Frederick Hooper, 46,
 Bath St.
 Cassels, James, 24, Sauchiehall St.
 Craig, Thomas, Port-Dundas.
 Crawford, A. do.
 Craig, James, 40, Queen St.
 Crawford, William S.
 Cumming, Archibald, 21, Glass-
 ford St.
 Cuthbertson, Donald, 110, Fyfe
 Place.
 Cogan, J., 248, West George's St.
 Cogan, Hugh, 248, Brandon Place.
 Cogan, Robert, 8, do.
 Collins, William, Bookseller, South
 Frederick St.
 Connal, William, Virginia Build-
 ings.
 Comrie, John, 12, Glebe St.
 Chapman, Peter, Keir Place.
 Chalmers, Thomas, of C. & Co.,
 Trongate.
 Cochran, William, 88, Candleriggs.
 Connal, R., Teacher, Garnet Hill.
 Corbet, William, 51, Miller St.
 Cocker, W. D., 11, Cathcart St.
 Compton, Joseph, Jun., Man-
 chester.
 Collie, Alexander, J. & W. Camp-
 bell & Co.
 Colville, George, 95, Argyle St.
 Cunningham, David, P. Dundas.
 Couper, James, 45, Garnagad Hill.
 Cuthbertson, William, of C. &
 Tweedie, 108, Argyle St.
 Colledge, William, 38, Dunlop St.
 Crichton, William, Superintend-
 ent, Port-Dundas.
 Clerk, Duncan, Port-Glasgow.
 Clark, Allan, 156, George's St.
 Currie, — Flour Mills, P. Dundas.
 Clay, William L., Kirkintilloch.
 Campbell, D., Provision Store,
 Port-Dundas.

Campbell, C., Colgrain, two copies.

D

D'Hamel, Dr. of Moscow, Russia.
Denovan, Alexander, 73, St. Vincent Place.

Donald, Robert, Port-Dundas.

Dunlop, Henry, Craigton.

Dunlop, James, Kirkintilloch.

Douglas, James, C. Surgeon,
10, George's Street.

Dougal, Robert, Fruit Merchant,
Buchanan St.

Drummond, Henry, Argyll St.

Duncan, Thomas, Dullatair.

Douglas, John, of Barloch, Justice of Peace Clerk.

Dalglish, A. S. Royal Exchange.

E

Eadie, Rev. John E., 43, Cambridge St.

Edington, T. Phoenix Foundry.

Ewing, J., L.L.D., of Levenside,
two copies.

Ewing, William Leckie, Atholl
Place, two copies.

Elder, David, Vulcan Foundry.

Ebbits, H. E., Post Office, Glasgow.

F

Fawcett, William, Engineer, Liverpool, six copies.

Fairley, Edward, Royal Bank.

Findlay, R., Glasgow and Ship
Bank.

Findlay, J.

Finlay, James, Buchanan St.

Fergus, James, Port-Dundas.

Ferrier, Hugh, 64, Buccleugh St.,
three copies.

Ferguson, William, 10, Corn St.,
Port-Dundas.

Fleming, James, Cowcaddens.

Fleming, R. D., 73, Hutcheson St.

Fleming, John, Port-Dundas.

Fisken, W., Torrance of Campsie.

Fowbister, J. W., of Customs.

Forrest, Gavin, Kirkintilloch.

Forbes, Rev. John, D.D., 100, West
Regent St.

Fyfe, James, Port-Dundas.

Flemington, John, of F. Mathieson
& Co., Trongate.

Fletcher, D., Bernice by Kilmun.

G

Garden, A. of Croy, two copies.

Gardiner, Henry, 95, George St.

Gallie, G., Bookseller, Buchanan
St.

Galbraith, Andrew, Oak Bank.

Gibson, Archibald, 7, Eglinton St.

Gibb, James, 49, Cochran St.

Gilchrist, James, Carron Shore.

Gilchrist, John, Old Basin Inn.

Gilmour, Bailie, London St.

Gilfillan, Michael, Kirkintilloch.

Gillon, J., Corn St., Port-Dundas.

Glover, William, Editor of Constitutional.

Glen, James, Shirra.

Gladstone, J., Faeque House, Fettercairn, two copies.

Goyder, Rev. D. G., 112, Castle-
milk Place.

Goodsair, David, Cashier, B. L.
Co's. Bank.

Gourlay, W. B., Port-Dundas.

Gullan, J. G., 48, George's Square.

Gray, A. Teacher, 77, Brunswick
St.

Gray, James, Engineer, of J. Gray
& Co.

Granger, William, Engineer, Den-
nyloanhead.

Greig, Mrs. London.

Grieve, Archibald, 10, Ure Place.

Graham, James Maxwell, 232, St.
Vincent St.

Graham, Patrick, Limekilns.

Graham, Miss, do.

Graham, John, Craigallion.

Graham, James, Grahamston.

Graham, Alexander, Capillie.

Grant, John, Helensburgh.

Glasgow and Liverpool Royal
Steam Packet Company, per
Mr. Langlands, three copies.

